ATOMIC ENERGY CENTRAL SCHOOL NO.4 Rawatbhata

MCQ Examination September (2020-2021)

CLASS 09 - ENGLISH

English

Time Allowed: 30 minutes **Maximum Marks: 40**

1. According to Kezia's imagination, what is her father like with his big hands, neck and mouth in the story **The Little Girl?** **[1]**

   a) A giant
   b) A big animal
   c) A superhero
   d) A huge bird

2. Why did Kezia decide that there were different kinds of fathers? (The Little Girl) **[1]**

   a) Because her father and Mr. Macdonald as a father behaved differently towards their children.
   b) Because they all looked different in their physical appearance.
   c) Because they went to work at different places.
   d) Because they wore different clothes.

3. What does Kezia say to her father at the end of the story **The Little Girl**? **[1]**

   a) Her father has a big heart but she cannot hear it beating.
   b) Her father has a big heart which she can hear beating
   c) Her father has a very small heart.
   d) Her father did not have a heart.

4. Which family lived in the neighbourhood of Katherine? **[1]**

   a) The Smiths
   b) The Wilson Family
   c) The Johnsons
   d) The Macdonald Family

5. Who is the poet of the poem Rain on the Roof? **[1]**

   a) William Wordsworth
   b) COATES KINNEY
   c) W B Yeats
   d) John Keates

6. What revives the sweet memories in the poet's mind? **[1]**

   a) Busy Schedule
   b) Daily Routine
   c) None of these
   d) Rain drops falling on the roof

7. Whom did Kezia fear in the text titled **The Little Girl**? **[1]**

   a) Her grandmother
   b) Her father
   c) Her mother
   d) Her cook

8. What is the name of the girl in the prose titled **The Little Girl**? **[1]**

   a) Katherine
   b) Kezia
   c) Mao
   d) Alice

9. **A Truly Beautiful Mind**, what did Albert's playmates call him? **[1]**

a) Boring Brat
b) Brother Brown
c) Brother Boring
d) Big Brother

10. At what age did Einstein leave the school? (A Truly Beautiful Mind) **[1]**

a) At the age of fourteen
b) At the age of fifteen
c) At the age of seventeen
d) At the age of sixteen

11. What did Einstein think about Mileva Maric? **[1]**

a) A smart woman
b) A rival
c) A good friend
d) A clever creature

12. Which famous formula is attributed to Albert Einstein? (A Truly Beautiful Mind) **[1]**

a) $S = k. \log W$
b) V - E + F = 2
c) $E = mc^2$
d) $F = ma$

13. Which famous papers of Einstein is said to have been published in 1905? (A Truly Beautiful Mind) **[1]**

a) Newton's Three Laws
b) Newton's Theory of Gravity
c) Special Theory of Relativity
d) General Theory of Relativity

14. What kind of prose do you think, **A Truly Beautiful Mind** can be categorised as? **[1]**

a) Novel
b) Biographical text
c) Autobiographical text
d) Short story

15. Which prestigious award did Einstein receive in the year 1921? (A Truly Beautiful Mind) **[1]**

a) Franklin Medal
b) Gold Medal of the Royal Astronomical Society
c) Copley Medal
d) Nobel Prize for Physics

16. Where did Einstein emigrate to when the Nazis came to power in Germany? (A Truly Beautiful Mind) **[1]**

a) Japan
b) England
c) Switzerland
d) The United States

17. Who used to tell Kalam stories about the world war? **[1]**

a) Samsuddin
b) Sivaprakasan
c) Arvindan
d) Jalaluddin

18. My childhood is an extract from which book? **[1]**

a) Ignited minds
b) You are born to blossom
c) Beehive
d) Wings of fire

19. My childhood is a part of an autobiography of _____. **[1]**

a) Sunil Gavaskar
b) Dr Manmohan Singh

c) Sachin Tendulkar
d) Dr. A. P. J. Abdul Kalam

20. How did Kalam get one anna daily? **[1]**

a) By selling tamarind seeds
b) By selling newspaper
c) By selling tea
d) By selling mud pots

21. How many closed friends did Kalam have? **[1]**

a) Three
b) Two
c) One
d) Four

22. What was the name of Kalam's mother? **[1]**

a) Afshana
b) Asmaa
c) Ashiamma
d) Abidah

23. What was the name of A.P.J Abdul Kalam's father? **[1]**

a) Jalaluddin
b) Abul Pakeer
c) Jainulabdeen
d) Abdul

24. Where was A.P.J Abdul Kalam born? **[1]**

a) Madurai
b) Bangalore
c) Chennai
d) Rameswaram

25. How was Toto carried on the train? **[1]**

a) It was kept in a basket.
b) It sat on the seat beside the grandfather.
c) It was tied in a sack.
d) It was kept in a big black canvas kit bag.

26. Who is the writer of **The Adventures of Toto**? **[1]**

a) Mulk Raj Anand
b) Ruskin Bond
c) A.P.J Abdul Kalam
d) R.K. Laxman

27. Who brought Toto to the narrator's house? **[1]**

a) Author's grandfather
b) Author's grandmother
c) Author's mother
d) Author's father

28. Where did the writer's grandfather travel with Toto? **[1]**

a) Saharanpur
b) Bilaspur
c) Rampur
d) Sitapur

29. How did Toto react after throwing the dish down from the tree? **[1]**

a) He started weeping
b) He was full of regret
c) He got petrified
d) He chattered with delight

30. Who was Toto? **[1]**

a) A dog
b) A monkey

c) A lamb
d) A boy

31. What kind of an animal was Toto? **[1]**

a) A tame squirrel
b) A mischievous baby monkey
c) A chubby cat
d) A lazy donkey

32. How much fare was collected by the ticket collector for Toto's travel? **[1]**

a) Seven rupees
b) One rupee
c) Three rupees
d) Ten rupees

33. Who is the wisest man in the story, **In the Kingdom of Fools**? **[1]**

a) The disciple
b) The guru
c) The minister
d) The king

34. What was the cost of every product that was available at the kingdom's market **In the Kingdom of Fools**? **[1]**

a) Two rupees
b) Five rupees
c) A duddu
d) A rupee

35. How did the guru save his disciple in **In the Kingdom of Fools**? **[1]**

a) Guru offered a handsome price to rescue his disciple.
b) Guru performed to impress the king.
c) Guru created a mystery and expressed his desire to die first.
d) He tempted the kingdom to a bounty.

36. Whom did the bricklayer blame for his inaccurate work in the story, **In the Kingdom of Fools**? **[1]**

a) The goldsmith
b) The disciple
c) The rich merchant
d) The dancing girl

37. Who became the new king and the new minister after the existing king and the minister were executed in the story, **Kingdom of Fools**? **[1]**

a) The burgler's brother and the bricklayer
b) The merchant and the goldsmith
c) The bricklayer and the dancing girl
d) The guru and his disciple

38. Who were the two idiots in the kingdom? (In the Kingdom of Fools) **[1]**

a) The guru and the disciple
b) The king and the minister
c) The merchant and his father
d) The thief and his brother

39. Why did the disciple want to continue his stay at the Kingdom of Fools in spite of his guru's repetitive advice to leave the place in the text, **In the Kingdom of Fools**? **[1]**

a) Because he liked the place
b) Because everything was available at a cheap rate
c) Because the house they lived in was
d) Because the place had a comfortable

beautiful and he didn't want to leave it

climate

40. Why did the king decide to die first in the story, **In the Kingdom of Fools**? **[1]**

a) To take birth as a saint

b) To be free from the universe

c) To take birth again as the king of the kingdom

d) To take birth as the minister of the kingdom

ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

MCQ Examination September (2020-2021)

CLASS 09 - HINDI A

Hindi

Time Allowed: 30 minutes **Maximum Marks: 40**

1. 'मानसिकता' शब्द में से मूल शब्द और प्रत्यय अलग कीजिए। **[1]**

   a) मन + इकता
   b) मानसिक + ता
   c) मानस + इकता
   d) मान + सिकता

2. 'निजत्व' शब्द में से मूल शब्द और प्रत्यय अलग कीजिए। **[1]**

   a) निजता + व
   b) निज + तव
   c) निज + त्व
   d) निजत + व

3. 'पर' उपसर्गयुक्त शब्द हैं - **[1]**

   a) प्रचार, प्रकाश
   b) प्रमाण, प्रकार
   c) परदादा, परनाना
   d) प्रसन्न, प्रमुख

4. 'अतिरिक्त' शब्द में से उपसर्ग और मूल शब्द अलग कीजिए। **[1]**

   a) अ + तिरिक्त
   b) अति + रिक्त
   c) अत + रिक्त
   d) अत्य + रिक्त

5. 'सात सौ दोहों का समूह' समास विग्रह का उचित समस्त पद और समास का नाम दिए गए विकल्पों में से चुनिए। **[1]**

   a) सतसई - समस्त पद
      द्विगु समास - समास का नाम
   b) सप्तसमूह - समस्त पद
      बहुव्रीहि समास - समास का नाम
   c) सप्तपद - समस्त पद
      कर्मधारय समास - समास का नाम
   d) सातसाईं - समस्त पद
      द्वंद्व समास - समास का नाम

6. अनुज - अग्रज का समास विग्रह कर समास का नाम लिखिए। **[1]**

   a) अनुज है जो अग्रज - समास विग्रह
      कर्मधारय समास - समास का नाम
   b) अनुज और अग्रज - समास विग्रह
      द्विगु समास - समास का नाम
   c) अनुज है जो अग्रज - समास विग्रह
      बहुव्रीहि समास - समास का नाम
   d) अनुज और अग्रज - समास विग्रह
      द्वंद्व समास - समास का नाम

7. 'शरण में आगत' समास विग्रह के लिए उचित समस्त पद और समास का नाम दिए गए विकल्पों में से चुनिए। **[1]**

   a) शरणागत - समस्त पद
      अव्ययीभाव समास - समास का नाम
   b) शरणागत - समस्त पद
      द्विगु समास - समास का नाम
   c) शरणागत - समस्त पद
      कर्मधारय समास - समास का नाम
   d) शरणागत - समस्त पद
      अधिकरण तत्पुरुष समास - समास का नाम

8. राजा - रंक शब्द का समास विग्रह कर समास का नाम लिखिए। **[1]**

   a) राजा और रंक - समास विग्रह
   b) राजा और रंक - समास विग्रह

द्विगु समास - समास का नाम
द्वंद्व समास - समास का नाम

c) राजा और रंक - समास विग्रह
तत्पुरुष समास - समास का नाम

d) राजा और रंक - समास विग्रह
अव्ययीभाव समास - समास का नाम

9. जिन वाक्यों में किसी क्रिया के करने या होने का सामान्य कथन होता है, उन्हें कहते हैं **[1]**

a) विस्मयादिवाचक वाक्य
b) इच्छावाचक वाक्य
c) आज्ञावाचक वाक्य
d) विधानवाचक वाक्य

10. काश ! मैं अरूण जितना अमीर होता। - अर्थ के आधार पर वाक्य-भेद बताओ। **[1]**

a) संदेहवाचक वाक्य
b) आज्ञावाचक वाक्य
c) संकेतवाचक वाक्य
d) इच्छावाचक वाक्य

11. जिन वाक्यों से एक क्रिया के दूसरी क्रिया पर निर्भर होने का बोध हो, उन्हें _____वाक्य कहते हैं । **[1]**

a) विस्मयादिवाचक वाक्य
b) संकेतवाचक वाक्य
c) इच्छावाचक वाक्य
d) संदेहवाचक वाक्य

12. जिस वाक्य में घृणा या तिरस्कार का भाव हो, उसे कहते हैं _____ **[1]**

a) विस्मयादिवाचक वाक्य
b) इच्छावाचक वाक्य
c) घृणावाचक वाक्य
d) तिरस्कार वाचक वाक्य

13. निम्नलिखित रचनाओं में से कौन-सी रचना जाबिर हुसैन द्वारा रचित नहीं है ? **[1]**

a) जो आगे है
b) निर्मला
c) एक नदी रेत भरी
d) अतीत का चेहरा

14. 'कोई अपने जिस्म की हरारत और दिल की धड़कन देकर भी उसे लौटाना चाहे तो वह पक्षी अपने सपनों के गीत दोबारा कैसे गा सकेगा ?' **[1]**
'सांवले सपनों की याद' पाठ में यह वाक्य किस व्यक्ति के लिए प्रयोग किया गया है ?

a) जान कीट्स
b) सालिम अली
c) डी एच लॉरेंस
d) लार्ड ब्राउन

15. सालिम अली ने केरल की साइलेंट वैली को रेगिस्तानी हवा के दुष्प्रभाव से बचाने के लिए किस प्रधानमंत्री से अनुरोध किया था? **[1]**

a) इंदिरा गांधी
b) जवाहरलाल नेहरू
c) अटल बिहारी वाजपेई
d) चौधरी चरण सिंह

16. सालिम अली की तुलना किस लेखक से की गई है? **[1]**

a) विलियम वर्डसवर्थ
b) जान कीट्स
c) लार्ड ब्राउन
d) डी एच लॉरेंस

17. 'सांवले सपनों की याद' पाठ किस शैली में लिखा गया है ? **[1]**

a) मूल्यांकन
b) विवरणात्मक
c) डायरी
d) विचारात्मक

18. 'सांवले सपनों की याद' पाठ के लेखक जाबिर हुसैन का जन्म किस प्रांत में हुआ था ? **[1]**

a) बिहार
b) वेस्ट बंगाल
c) केरल
d) उत्तर प्रदेश

19. सालिम अली की मृत्यु किस बीमारी से हुई थी? **[1]**

a) कैंसर से
b) टी.बी. से
c) किसी लम्बी बीमारी से
d) ब्रेन ट्यूमर से

20. सालिम अली साइलेंटवैली की रक्षा के लिए किससे मिले थे? **[1]**

a) राज्यसरकार से
b) तत्कालीन पर्यावरण मंत्री से
c) प्रधानमंत्री श्रीमती इन्दिरा गाँधी से
d) प्रधानमंत्री चौधरी चरण सिंह से

21. जेब टटोलना का अर्थ है:- **[1]**

a) आत्मालोचन करना
b) उधार चुकाना
c) पैसे देना
d) पैसों का गायब होना

22. पानी टपके कच्चे सकोरे, व्यर्थ प्रयास हो रहे मेरे। **[1]**
जी में उठती रह-रह हूक,घर खाने की चाह है घेरे।।
ललद्यद द्वारा रचित वाख की इन पंक्तियों में कौन-सा काव्यसौंदर्य प्रकट हुआ है ?

a) संगीतात्मकता
b) लयात्मकता
c) प्रतीकात्मकता
d) स्वरमैत्री

23. थल-थल में बसता है शिव ही, **[1]**
भेद न कर क्या हिंदू-मुसलमां।
ज्ञानी है तो स्वयं को जान
वही है साहिब से पहचान ।
ललद्यद ने इस वाख में समाज में फैली किस बुराई की ओर संकेत किया है ?

a) प्रचलित भेदभाव का
b) धर्माडंबरों का
c) अमीरी-गरीबी का
d) मूर्ति पूजा का

24. खा-खाकर कुछ पाएगा नहीं, **[1]**
न खाकर बनेगा अहंकारी ,
सम खा तभी होगा समभावी,
खुलेगी सांकल बंद द्वार की।
ललद्यद का 'न खाकर बनेगा अहंकारी' से क्या तात्पर्य है ?

a) भोग विलास से दूर होने का घमंड होना
b) घमंड होना
c) अपने को दूसरों से भिन्न समझना
d) स्वयं को महात्मा मानने लगना

25. वाख की रचयिता किस भाषा में रचना करती थी? **[1]**

a) कश्मीरी
b) हिंदी
c) उर्दू
d) पंजाबी

26. 'वाख' काव्य के सन्दर्भ में साहिब कौन है? **[1]**

a) पड़ोसी
b) परमपिता परमेश्वर
c) परमगुरु
d) मकान-मालिक

27. ज्ञानी है तो स्वयं को जान , **[1]**
वही है साहिब से पहचान।
ललद्यद द्वारा रचित इन पंक्तियों में 'साहिब' शब्द द्वारा किसी ओर संकेत किया गया है ?

a) कृष्ण

b) गुरु

c) शिव

d) निर्गुण निराकार ब्रह्म

28. खा-खाकर कुछ पाएगा नहीं, **[1]**
न खाकर बनेगा अहंकारी,
सम खा तभी होगा समभावी,
खुलेगी सांकल बंद द्वार की।
ललद्यद ने 'खा' शब्द का प्रयोग किस अर्थ में किया है?

a) धन-दौलत खर्च करना

b) भोग-विलास में लिप्त होना

c) गम खाना

d) भोजन करना

29. कवयित्री ललद्यद ने किस धर्म की शिक्षा ली थी ? **[1]**

a) वैदिक

b) वैष्णव

c) शाक्त

d) शैव

30. आई सीधी राह में, गई न सीधी राह। **[1]**
सुषुम-सेतु पर खड़ी थी, बीत गया दिन आह।
जेब टटोली कौड़ी न पाई,
मांझी को दूं क्या उतराई ?
कवयित्री ललद्यद इस वाख में क्या संदेश देती है?

a) भेदभाव का विरोध करना

b) सद्कर्मों द्वारा ईश्वर की प्राप्ति करना

c) बाह्य आडंबरों से दूर रहना

d) भवसागर रुपी संसार से पार उतरने की इच्छा रखना

31. लेखिका की नानी कैसी महिला थीं ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) दूसरों के हिसाब से चलने वाली

b) परतंत्र विचारों वाली

c) आज़ाद ख्यालों वाली

d) दूसरों को अपने हिसाब से चलाने वाली

32. लेखिका मृदुला गर्ग ने कहाँ पर प्राइमरी स्कूल की स्थापना की? **[1]**

a) डालमिया नगर

b) बागलकोट

c) ग्वालियर

d) कर्नाटक

33. 'पहले मुझे समझाओ कि बी.ए. करना क्यों जरुरी है, तब मैं इम्तिहान दूंगी' - वाक्य किसने कहा ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) रेणु ने

b) चित्रा ने

c) मृदुला ने

d) अचला ने

34. पूरा नकुड गाँव माँ जी के बारे में क्या जानता था ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) इनमें से कोई नहीं

b) उनका भगवान् से सीधा तार जुड़ा हुआ है

c) उन्हें भगवान् जानता है

d) उन्हें भगवान् बुलाता है

35. मेरे संग की औरतें पाठ के अनुसार लेखिका की नानी कैसी औरत थी? **[1]**

a) पारंपरिक विचारों वाली

b) ग्रामीण औरत

c) पारंपरिक, अनपढ़ और पर्दा करने वाली

d) अनपढ़

36. लेखिका कितने भाई बहन थे ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) पांच बहिन एक भाई

b) एक बहिन तीन भाई

c) चार बहिन दो भाई

d) दो बहिन तीन भाई

37. 'स्कूल बंद था तो मैं वापिस आ गई, इसमें आपका कहना कहाँ से आ गया ?' यह वाक्य किसने कहा? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) चित्रा ने

b) अचला ने

c) मंजुल ने

d) रेणु ने

38. लेखिका की माँ को किस कारण सब घरवालों का आदर मिला हुआ था ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) क्योंकि वे कभी सच नहीं बोलती थीं

b) क्योंकि वे कभी झूठ नहीं बोलती थीं

c) क्योंकि वे कोई काम नहीं करती थीं

d) क्योंकि वे बहुत कमज़ोर थीं

39. इंडिया गेट पर आज़ादी के जश्न में लेखिका के सम्मिलित न होने का क्या कारण था ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए । **[1]**

a) उन्हें टाइफाइड हो गया था

b) उन्हें बुखार था

c) उन्हें मलेरिया हो गया था

d) उन्हें पीलिया हो गया था

40. लेखिका ने किसे कतार से खिसका हुआ बताया है ? 'मेरे संग की औरतें' पाठ के आधार पर बताइए। **[1]**

a) नाना को

b) दादी को

c) परदादी को

d) पिता को

ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

MCQ Examination September (2020-2021)

CLASS 09 - MATHEMATICS

Mathematics

Time Allowed: 40 minutes **Maximum Marks: 40**

General Instructions:

Please do not refresh the page once quiz begins.

Please do not switch over the other screen during the quiz.

1. ABCD is a Parallelogram in which $\angle BAO = 35^\circ$, $\angle DAO = 40^\circ$ and $\angle COD = 105^\circ$. Find $\angle ABO$? **[1]**

   a) 40° b) 30°

   c) 45° d) 20°

2. If the diagonals of a rhombus are 18 cm and 24 cm respectively, then its side is equal to **[1]**

   a) 20 cm b) 15 cm

   c) 16 cm d) 17 cm

3. Diagonals of a Parallelogram ABCD intersect at O. If $\angle BOC = 90^\circ$, $\angle BDC = 50^\circ$ then $\angle OAB$ is **[1]**

   a) 10° b) 40°

   c) 90° d) 50°

4. Each question consists of two statements, namely, Assertion (A) and Reason (R). Choose the correct option. **[1]**

Assertion (A)	Reason (R)
If three angles of a quadrilateral are 130^o, 70^o and 60^o then the fourth angle is 100^o	The sum of all the angle of a quadrilateral is 360^o

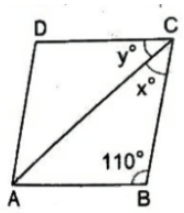
   a) Assertion (A) is true and Reason (R) is false

   b) Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A)

   c) Both Assertion (A) and Reason (R) are true but Reason (R) is not a correct explanation of Assertion (A)

   d) Assertion (A) is false and Reason (R) is true

5. In the given figure, ABCD is a Rhombus. Find the value of x and y? **[1]**



a) x = 35°and y = 35°

b) x = 45°and y = 45°

c) x = 37°and y = 37°

d) x = 40°and y = 40°

6. The Quadrilateral formed by joining the mid-points of the sides of a Quadrilateral PQRS, taken in order, is a rectangle if **[1]**

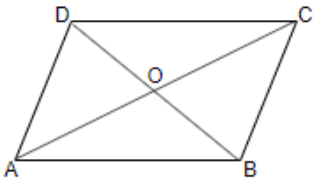
a) PQRS is a Rectangle

b) None of these

c) PQRS is a Parallelogram

d) Diagonals of PQRS are at right angles.

7. In the given figure, ABCD is a Rhombus. Then, **[1]**



a) $(AC^2 + BD^2) = 3AB^2$

b) $AC^2 + BD^2 = 4AB^2$

c) $AC^2 + BD^2 = AB^2$

d) $AC^2 + BD^2 = 2AB^2$

8. In a quadrilateral ABCD, AO and BO are the bisectors of $\angle$A and $\angle$B respectively, $\angle$C = 70° and $\angle$D = 30°. Then, $\angle$AOB = ? **[1]**

a) 100^o

b) 50^o

c) 80^o

d) 40^o

9. If bisector of $\angle A$ and $\angle B$ of a quadrilateral ABCD intersect each other at p , $\angle B$ and $\angle C$ at Q , $\angle C$ and $\angle D$ at R and, $\angle D$ and $\angle A$ at S then PQRS is a **[1]**

a) Rectangle

b) Parallelogram

c) Rhombus

d) Quadrilateral whose opposite angles are supplementary

10. Angles of a quadrilateral are in the ratio 3 : 4 : 4 : 7. Find all the angles of the quadrilateral. **[1]**

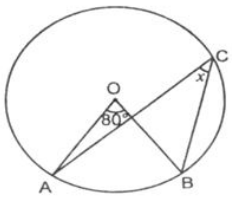
a) 60^o, 80^o, 100^o, 90^o

b) 60^o, 120^o, 80^o, 140^o

c) 60^o, 80^o, 80^o, 140^o

d) 70^o, 70^o, 100^o, 100^o

11. In the figure, O is the centre of eh circle and $\angle AOB = 80^o$. The value of x is : **[1]**



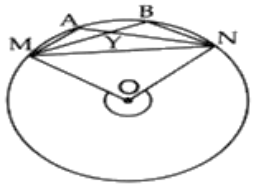
a) 60^o

b) 30^o

c) 160^o

d) 40^o

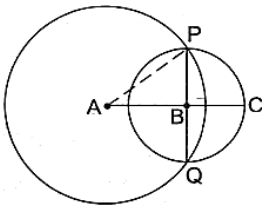
12. In the given figure, M, A, B and N are points on a circle having centre O. AN and MB cut at Y. If $\angle NYB = 50^o$ and $\angle YNB = 20^o$, then reflex $\angle MON$ is equal to **[1]**



a) 240^o b) 200^o

c) 260^o d) 220^o

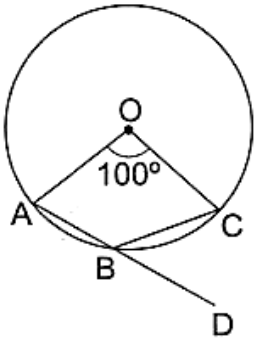
13. In the given figure, A and B are the centres of two circles having radii 5 cm and 3 cm respectively and intersecting at points P and Q respectively. If AB = 4 cm, then the length of common chord PQ is **[1]**



a) 6 cm b) 3 cm

c) 7.5 cm d) 9 cm

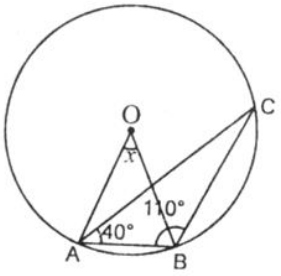
14. In the given figure, O is the centre of a circle in which ∠AOC = 100°. Side AB of quad. OABC has been produced to D. Then, ∠CBD = ? **[1]**



a) 80° b) 50°

c) 25° d) 40°

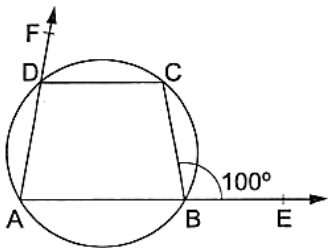
15. In the given figure, O is the centre of the circle. If $\angle CAB = 40^o$ and $\angle CBA = 110^o$, the value of x is : **[1]**



a) 55^o b) 80^o

c) 50^o d) 60^o

16. In the given figure, sides AB and AD of quad. ABCD are produced to E and F respectively. If ∠CBE = 100°, then ∠CDE = ? **[1]**



a) 90°

b) 80°

c) 130°

d) 100°

17. AD is diameter of a circle, O being the centre and AB is a chord. Let the centre of AB be denoted by M, then find OM **[1]**

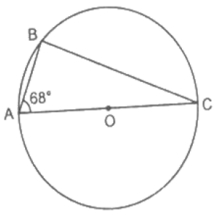
a) 8 cm

b) 5 cm

c) 7 cm

d) 6 cm

18. In the given figure, O s the centre of circle, $\angle BAO = 68^o$, AC is diameter of circle, then measure of $\angle BCO$ is : **[1]**



a) 33^o

b) 22^o

c) 68^o

d) 44^o

19. A chord of length 14 cm is at a distance of 6 cm from the centre of a circle. The length of another chord at a distance of 2 cm from the centre of the circle is **[1]**

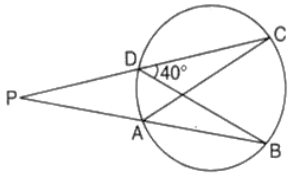
a) 12 cm

b) 16 cm

c) 14 cm

d) 18 cm

20. In the given figure, if $\angle CDB = 40^o$, then the measure of $\angle PAC$ is **[1]**



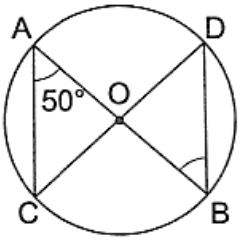
a) 100^o

b) 160^o

c) 120^o

d) 140^o

21. In the given figure, O is the centre of a circle. If ∠OAC = 50°, then ∠ODB = ? **[1]**



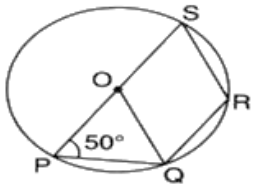
a) 50^o

b) 60^o

c) 75^o

d) 40^o

22. In the given figure, O is the centre of the circle and $\angle SPQ = 50^o$. Then, the measure of $\angle SRQ$ is **[1]**



a) 130^o b) 100^o

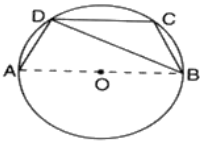
c) 110^o d) 120^o

23. If O is the centre of a circle of radius r and AB is a chord of the circle at a distance $\frac{r}{2}$ from O, then $\angle$BAO = **[1]**

a) 60^o b) 45^o

c) 15^o d) 30^o

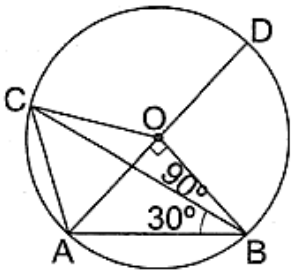
24. In the given figure, if $\angle ADC = 118^o$, then the measure of $\angle BDC$ is **[1]**



a) 32^o b) 38^o

c) 28^o d) 22^o

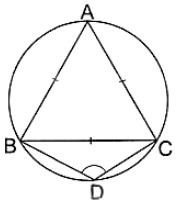
25. In the given figure, $\angle$AOB = 90° and $\angle$ABC = 30°. Then, $\angle$CAO = ? **[1]**



a) 45° b) 60°

c) 90° d) 30°

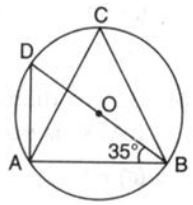
26. In the given figure, equilateral $\triangle$ABC is inscribed in a circle and ABCD is a quadrilateral, as shown. Then, $\angle$BDC = ? **[1]**



a) 120° b) 60°

c) 150° d) 90°

27. In the given figure, O is the centre of the circle. If $\angle DBA = 35^o$, then the measure of $\angle ACB$ is equal to **[1]**



a) 65^o b) 55^o

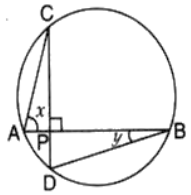
c) 45^o d) 60^o

28. In a circle of radius 17 cm, two parallel chords are drawn on opposite side of a diameter. The distance between the chords is 23 cm. If the length of one chord is 16 cm, then the length of the other is **[1]**

a) 30 cm b) 23 cm

c) 15 cm d) 34 cm

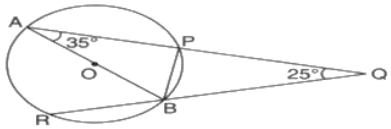
29. In the given figure, if chords AB and CD of the circle intersect each other at right angles, then, x + y = **[1]**



a) 75^o b) 45^o

c) 90^o d) 60^o

30. In the given figure, AB is a diameter of the circle APBR. APQ and RBQ are straight lines. If $\angle A = 35^o$ and , then the measure of $\angle PBR$ is **[1]**



a) 155^o b) 135^o

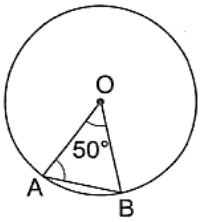
c) 165^o d) 115^o

31. The angle in a semicircle measures **[1]**

a) 60^o b) 36^o

c) 45° d) 90^o

32. In the given figure, O is the centre of a circle. Then, $\angle$OAB = **[1]**



a) 55° b) 50°

c) 60° d) 65°

33. An equilateral triangle ABC is inscribed in a circle with centre O. The measures of $\angle$BOC is **[1]**

a) 90^o b) 60^o

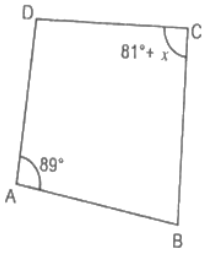
c) 30^o d) 120^o

34. The radius of a circle is 6 cm. The perpendicular distance from the centre of the circle to the chord which is 8 cm in length, is **[1]**

a) $\sqrt{7}$ cm b) $2\sqrt{7}$ cm

c) $2\sqrt{5}$ cm d) $\sqrt{5}$ cm

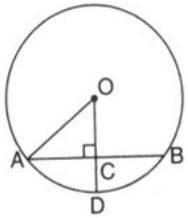
35. For what value of x in the figure, points A, B, C and D are concyclic? **[1]**



a) 11^o b) 12^o

c) 9^o d) 10^o

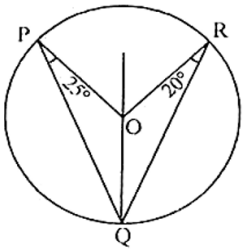
36. In the given figure if OA = 5 cm, AB = 8 cm and OD is perpendicular to AB, then CD is equal to **[1]**



a) 3 cm b) 2 cm

c) 4 cm d) 5 cm

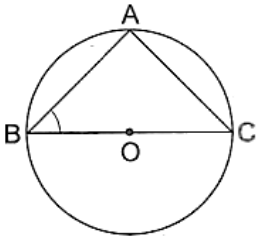
37. In the figure, O is the centre of the circle. If $\angle OPQ = 25^o$ and $\angle ORQ = 20^o$, then the measures of $\angle POR$ and $\angle PQR$ are respectively : **[1]**



a) None of these b) $120^o, 60^o$

c) $90^o, 45^o$ d) $60^o, 30^o$

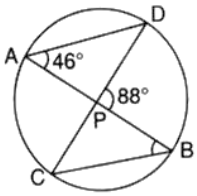
38. In the given figure, BOC is a diameter of a circle and AB = AC. Then, $\angle$ABC = ? **[1]**



a) 45° b) 30°

c) 60° d) 90°

39. In the given figure, chords AB and CD intersect at P. If $\angle DPB = 88^o$ and $\angle DAP = 46^o$, then the measure of $\angle ABC$ is **[1]**



a) 42^o b) 48^o

c) 46^o d) 44^o

40. If two diameters of a circle intersect each other at right angles, then quadrilateral formed by joining their end points is a **[1]**

a) parallelogram b) rectangle

c) square d) rhombus

ATOMIC ENERGY CENTRAL SCHOOL NO.4 Rawatbhata

MCQ Examination September (2020-2021)

CLASS 09 - SCIENCE

Multiple Choice Questions Test (September) 2020-21

Time Allowed: 30 minutes **Maximum Marks: 40**

1. The sample of water from a well is analysed. What will be the ratio of hydrogen and oxygen in it by mass? **[1]**

   a) 16:1 b) 8:1

   c) 1:16 d) 1:8 or 2:16

2. Which of the following has maximum number of atoms? **[1]**

   a) 18 g of O_2 b) 18 g of H_2O

   c) 18 g of CO_2 d) 18 g of CH_4

3. Which of the following elements are present in Quick lime? **[1]**

   A. Calcium, Oxygen
   B. Sodium, Hydrogen, Oxygen
   C. Calcium, Bromine
   D. Calcium chloride

   a) (B) b) (D)

   c) (C) d) (A)

4. Match the following with correct response: **[1]**

(1) A dozen of pencil	(A) Mole
(2) Avogadro constant	(B) 12
(3) Unit used for calculation of amount of chemical substances	(C) Carbon-12
(4) Reference atom	(D) 6.022×10^{23}

   a) 1-D, 2-A, 3-C, 4-B b) 1-C, 2-B, 3-D, 4-A

   c) 1-A, 2-C, 3-B, 4-D d) 1-B, 2-D, 3-A, 4-C

5. Mass of one atom of oxygen is **[1]**

   a) 8 u b) $\frac{1}{6.023\times10^{23}}$ g

   c) $\frac{32}{6.023\times10^{23}}$ g d) $\frac{16}{6.023\times10^{23}}$ g

6. Which is not true about H_2SO_4? **[1]**

   (a) It is composed of 2 Hydrogen, 1 Sulphur and 4 Oxygen atoms.
   (b) It relative molecular mass is 98.
   (c) It is composed of one molecule of H_2, one atom of S and two molecules of O_2
   (d) Its relative molecular mass is 108.

a) All of these
b) (c) and (d) are correct.
c) (b) and (c) are correct
d) (a), (b) and (c) are correct

7. Calculate the number of moles in 17 g of hydrogen peroxide (H_2O_2). **[1]**

a) 2 mole
b) 1 mole
c) $\frac{1}{2}$ mole
d) 3 mole

8. One mole of N_2 is equal to _____. **[1]**

a) 14 g of Nitrogen
b) 20 grams of Nitrogen
c) None of these
d) 6.022×10^{23} N_2 molecules

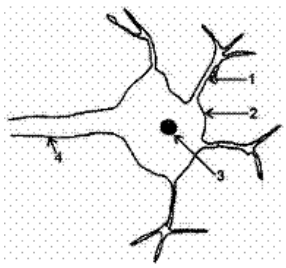
9. The names of elements present in Hydrogen Bromide are- **[1]**

a) Hydrogen,Bromine
b) Hydrogen , oxygen
c) Nitrogen,oxygen
d) Helium, Neon

10. How many moles are present in 2.3 g of Na? **[1]**

a) 2 mole
b) 1 mole
c) 0.1 mole
d) $\frac{2}{3}$ mole

11. The student were shown the slide of a nerve cell. They were asked to drawn the diagram of the nerve cell. The correct sequence of the labeling 1, 2, 3, 4 is: **[1]**



a) Axon, Cytoplasm. Dendrite, Nucleus
b) Cilia, Nucleus, Dendrite, Cyton
c) Axon, Nissl's granule, Dendrite, Cytoplasm
d) Dendron, Cyton, Nucleus, Axon

12. The extremely thin and flat cells forming a delicate lining in the lung alveoli constitute **[1]**

a) stratified squamous epithelium
b) simple squamous epithelium
c) ciliated epithelium
d) simple cuboidal epithelium

13. Chloroplasts may occur in **[1]**

a) chlorenchyma and sieve tubes
b) xylem parenchyma and sclerenchyma
c) collenchyma and sclerenchyma
d) parenchyma and collenchyma

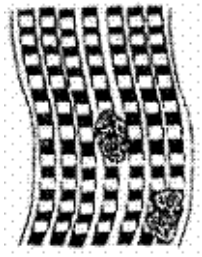
14. Flexibility in plants is due to **[1]**

a) parenchyma
b) chlorenchyma
c) collenchyma
d) sclerenchyma

15. Chlorenchyma and aerenchyma are modified/specialised **[1]**

a) phloem
b) parenchyma
c) sclerenchyma
d) collenchyma

16. A student identified the following figure as striated muscles because of: **[1]**



a) has no striations and is multinucleated
b) light and dark striations and is uninucleated
c) light and dark striations and is multinucleated
d) has no striations and is uninucleated

17. The mineral elements found in our bone making it hard, are **[1]**

a) calcium and phosphorus
b) sodium and potassium
c) phosphorus and sodium
d) sodium and calcium

18. The common characteristic of xylem tracheids and sieve tubes is that both are: **[1]**

a) thick-walled cells
b) dead cells
c) living cells
d) meant for conduction

19. Rhythmic contraction and relaxation throughout life, are shown by **[1]**

a) epithelium of lungs
b) striated muscles of tongue
c) striated muscles of limbs
d) cardiac muscles of heart

20. The end of a long bone is connected to another bone by **[1]**

a) Ligament
b) Muscle
c) Cartilage
d) Tendon

21. Which of the following is not a function of the epidermis? **[1]**

a) Transpiration
b) Conduction of food
c) Exchange of gases
d) Protection

22. Select the incorrect sentence **[1]**

a) Cartilage is a form of connective tissue
b) Tendons are non-fibrous tissue and fragile
c) Two bones are connected with ligament
d) Blood has matrix containing proteins, salts, and hormones

23. A type of connective tissue whose matrix is made up of sugar and proteins is **[1]**

a) Adipose
b) Areolar tissue
c) Bone
d) Cartilage

24. Match the following with correct response. **[1]**

(1) Inertia	(A) Product of mass and velocity
(2) Friction	(B) Mass of the object
(3) Momentum	(C) Rate of change of momentum
(4) Force	(D) Necessary evil

a) 1-C, 2-B, 3-D, 4-A
b) 1-B, 2-D, 3-A, 4-C
c) 1-D, 2-A, 3-C, 4-B
d) 1-A, 2-C, 3-B, 4-D

25. Inflated balloon lying on the surface of a floor moves forward when pierced with a pin. The above-mentioned phenomena is due to **[1]**

a) Newton's fist law of motion
b) Conservation of energy
c) Newton's second law of motion
d) Newton's third law of motion

26. **Statement A:** Rocket contains fuel as well as oxygen to burn its fuel in its body. **[1]**
Statement B: A jet plane takes oxygen from the atmosphere to burn its fuel.
Which statement is true?

a) Statement A is true
b) Statement B is false
c) Both statement A and B are true
d) Neither statement A nor statement B is true

27. Match the following with correct response. **[1]**
(1) F
(2) P
(3) ΔP
(4) Momentum before collision

(A) $m \times v$
(B) Momentum after collision are equal
(C) $\frac{P_2 - P_1}{t}$
(D) $m \times a$

a) 1-D, 2-A, 3-C, 4-B
b) 1-C, 2-B, 3-D, 4-A
c) 1-B, 2-D, 3-A, 4-C
d) 1-A, 2-C, 3-B, 4-D

28. If force, change in momentum and time are given by F, p and t respectively, then they are related by **[1]**

a) F = pt
b) $p = F^2t$
c) $F = \frac{P}{t}$
d) $Ft^2 = p$

29. The inertia of an object tends to cause the object **[1]**

a) to decelerate due to friction
b) to increase its speed
c) to resists any change in its state of motion
d) to decrease its speed

30. The one which has the least inertia among the following: 1 kg stone, 2 kg ball, a train **[1]**

compartment and a cup of tea is

a) 2 kg ball
b) 1 kg stone
c) a train compartment
d) a cup of tea

31. **Statement A:** A passenger falls forward when a bus suddenly starts moving in the forward direction. **[1]**
Statement B: A gun recoils backward with a small speed than the bullet moving forward.
Which of the following statements is/are true?

a) neither statement A nor Statement B is true
b) statement B is true
c) both statements A and B are true
d) statement A is true

32. Bags at the top of school van are tied using a string to avoid the effect of **[1]**

a) inertia
b) acceleration
c) force
d) momentum

33. Water drops sticking to the wheel come out along the tangential line due to **[1]**

a) inertia
b) acceleration
c) momentum
d) force

34. The minimum number of unequal forces that can make zero resultant is **[1]**

a) ten
b) four
c) three
d) two

35. Rocket works on the principle of _____. **[1]**

a) Newton's third law
b) Newton's second law
c) Newton's fourth law
d) Newton's first law

36. According to second law of Newton, force is the cause and the outcome is: **[1]**

a) time
b) velocity
c) momentum
d) acceleration

37. **Assertion:** Epidermal cells on the aerial parts of the plant often secrete a waxy, water-resistant layer on their outer surface. **[1]**
Reason: This aids in protection against loss of water, mechanical injury, and invasion by parasitic fungi.

a) Both A and R are true and R is the correct explanation of assertion.
b) Both A and R are true but R is not the correct explanation of assertion.
c) A is true but R is false.
d) A is false but R is true.

38. **Assertion:** The cells of non-striated muscles or smooth muscles are spindle-shaped, uni-nucleated, elongated, and have no striations. **[1]**
Reason: They are found within the walls of elementary canal, bladder, and blood vessels.

a) Both A and R are true and R is the correct explanation of assertion.
b) Both A and R are true but R is not the correct explanation of assertion.

c) A is true but R is false.

d) A is false but R is true.

39. **Assertion:** The third law of motion states that when one object exerts a force on another object, the second object instantaneously exerts a force back on the first. **[1]**
Reason: The two forces are always equal in magnitude but opposite in direction.

a) Both A and R are true and R is the correct explanation of assertion.

b) Both A and R are true but R is not the correct explanation of assertion.

c) A is true but R is false.

d) A is false but R is true.

40. **Assertion:** While catching a fast-moving cricket ball, a fielder in the ground gradually pulls his hands backwards. **[1]**
Reason: The fielder increases the time during which the high velocity of the moving ball decreases to zero.

a) Both A and R are true and R is the correct explanation of assertion.

b) Both A and R are true but R is not the correct explanation of assertion.

c) A is true but R is false.

d) A is false but R is true.

ATOMIC ENERGY CENTRAL SCHOOL NO.4 RAWATBHATA

MCQ Examination September (2020-2021)

CLASS 09 - SOCIAL SCIENCE

Social Science

Time Allowed: 30 minutes **Maximum Marks: 40**

1. A war veterans organisation was called: **[1]**

   a) German Ruhr b) Gestapo

   c) Free Corps d) Berlin Soldiers

2. In which place was the International War Tribunal setup? **[1]**

   a) Nuremberg b) Czechoslovakia

   c) Auschwitz d) Vienna

3. Which of the following was not a feature of the new Nazi-style of politics? **[1]**

   a) Slogan Chanting b) Not so powerful speeches by Hitler

   c) Swastika Banners d) Rallies

4. Who among the following topped the list of undesirables? **[1]**

   a) Aryans b) Catholics

   c) Gypsies d) Jews

5. The term **Genocidal** means: **[1]**

   a) A kind of poison that Helmuth feared b) Suicide by the soldiers

   c) Killing on a large-scale leading to the destruction of a large section of people d) Suicide by Hitler's officers

6. The Great Depression was a period of **[1]**

   a) Economic Crisis b) Political Crisis

   c) Global Crisis d) Social Crisis

7. Which of the following was the State Secret Police? **[1]**

   a) Gestapo b) Strom Troopers

   c) Criminal Police d) Security Services

8. Who were the November Criminals? **[1]**

   a) Socialist, Deomocrats and Catholics b) Republicans

   c) Jews d) Spartacists

9. Which of these countries was related to Allied powers: **[1]**

   a) Germany b) Britain

c) Turkey
d) Austria

10. Which of the following was not a part of Hitler's policies to exclude Jews? **[1]**

a) Annihilation
b) Exclusion
c) Ghettoisation
d) Assimilation

11. Which one of the following places receives the highest rainfall in the world? **[1]**

a) Mawsynram
b) Cherrapunji
c) Guwahati
d) Silchar

12. Which of the following are two coldest months in the northern part of India? **[1]**

a) December, January
b) March, April
c) January, March
d) April, May

13. Which winds prevail in India during cold weather season? **[1]**

a) North – East trade winds
b) Permanent winds
c) North – West trade winds
d) North – South trade winds

14. Suppose you are living in Uttar Pradesh during which of the following period you can expect the monsoon showers? **[1]**

a) Last week of August
b) Ist week of June
c) Ist week of September
d) Ist week of July

15. Which of the following state is associated with Kaal Baisakhi? **[1]**

a) Tamil Nadu
b) Karnataka
c) Haryana
d) West Bengal

16. What is loo? **[1]**

a) These are cold winds.
b) These are strong, gusty, hot, dry winds blowing during the day over the north and north western India.
c) These are variable winds blowing in cold season.
d) These are cyclones.

17. Which of the following two states are affected by pre-monsoon showers? **[1]**

a) Kerala, Punjab
b) Kerala, Karnataka
c) Punjab, Haryana
d) Haryana, Rajasthan

18. Which is the wettest city in India? **[1]**

a) Mawsynram
b) Ladakh
c) Cherapunji
d) Barmer

19. Why most parts of India remains dry during cold weather season? **[1]**

a) Due to low pressure
b) The winds blow from land to land
c) Due to low temperature
d) The winds blow from land to sea

20. Which of the following is a feature of cold weather season in India ? A. Days are warm and nights are cold. B. There is low pressure in the southern parts of the country. **[1]**

a) A is false but B is true
b) Both are false
c) Both are true
d) A is true but B is false

21. In which of the following state land reform measures have helped in reducing poverty? **[1]**

a) Haryana
b) Tamil Nadu
c) West Bengal
d) Punjab

22. Which of the following Indian state has maximum number of people living below poverty line ? **[1]**

a) Uttar Pradesh
b) Bihar
c) Madhya Pradesh
d) Odisha

23. Which of the following is true with reference to poverty in India ? A. The poverty ratio is higher in rural areas as compared to urban areas. B. The poverty ratio is decreasing. **[1]**

a) Both A and B are true.
b) A is true but B is false.
c) A is false but B is true
d) Both A and B are false

24. Which of the following group of people are prone to food Insecurity? **[1]**

i. SC
ii. ST
iii. OBC
iv. Landless

a) Only (iii)
b) Only (i) and (iii)
c) All of these
d) Only (i) and (ii)

25. Which of the following social group has not seen a decline in poverty ratio? **[1]**

a) Scheduled Caste
b) Backward Class
c) Urban Casual Laborers
d) Scheduled Tribes

26. What is NSSO? **[1]**

a) Nation’s Sample Survey Organisation
b) National Sarva Siksha Organisation
c) National Sample Survey Organisation
d) National Statistics Survey Organisation

27. Which of the following yojna has been launched to bring the assisted poor families above the poverty line by organizing them into self-help groups through a mix of bank credit and government subsidy? **[1]**

a) NREGA
b) AAY
c) PMGY
d) SGSY

28. Which of the following is not included in the most vulnerable group of poverty? **[1]**

a) Schedule Tribe
b) Urban Casual Laborers

c) Marginal farmers
d) Schedule Cast

29. What is MNREGA? **[1]**

a) Marginal National Rural Employment Guarantee Act.
b) Mahatama Gandhi National Rural Employment Guarantee Action.
c) Marginal Natural Rural Employment Guarantee Act.
d) Mahatama Gandhi National Rural Employment Guarantee Act.

30. Which of the following scheme is to create self-employment opportunities for educated unemployed youth in rural areas and small towns? **[1]**

a) NFWP
b) WRTC
c) AAY
d) PMRY

31. _____ means a rule of the people, for the people and by the people. **[1]**

a) Monarchy
b) Democracy
c) Government
d) Republic

32. Democracy is a form of government where the people elect their _____. **[1]**

a) king
b) queen
c) public servants
d) representative

33. In which country one person, one vote, one value is not applied? **[1]**

a) India
b) Nepal
c) Fiji
d) Sri Lanka

34. Which party always won elections in Mexico since its independence in 1930 until 2000? **[1]**

a) Institutional Revolutionary Party
b) Institutional Party
c) Revolutionary Party
d) Mexican Revolutionary Party

35. Which one of the following is a country having one political party system? **[1]**

a) Nepal
b) China
c) USA
d) India

36. What is the term used to denote regimes which manipulate the electoral process in various ways, without resorting to blatant vote-rigging? **[1]**

a) Illiterate democracy
b) Imperfect democracy
c) Illiberal democracy
d) Illegal democracy

37. _____ is/are the real source of power in a democratic country. **[1]**

a) The judiciary
b) People
c) The parliament
d) Aristocrats

38. Which of these is not a valid reason for arguing that there is a lesser possibility of famine in a democratic country? **[1]**

a) Government fears its defeat in the next elections.
b) People are free to believe in and practise any religion.

c) Free press can report suffering from famine in different parts of the country.

d) Opposition parties can draw attention to hunger and starvation.

39. Democracy must be based on: **[1]**

a) Three party system

b) One-party system

c) Choice from only the ruling party

d) Free and fair election

40. Which one of the following is not the argument against democracy? **[1]**

a) Democracy is all about political competition and power play.

b) Rule of law and respect for rights

c) Democracy leads to corruption.

d) Democracy leads to instability

Solution

Class 09 - English

English

1. **(a)** A giant
   Explanation: Mansfield writes that for Kezia thinking about her father alone was like thinking about a giant.
2. **(a)** Because her father and Mr. Macdonald as a father behaved differently towards their children.
   Explanation: Kezia saw Mr Macdonald playing with his children happily while her father never played with her, instead he scolded her harshly which led her to decide the fact that there were different sorts of fathers.
3. **(b)** Her father has a big heart which she can hear beating
   Explanation: Clinging to her father, Kezia realizes that her father is not so terrible as she always thinks him to be. She then suddenly sits up and on being asked by the father whether she was having another bad dream, she replies that her head was on his heart and she could hear it going adding the fact that he has a big heart.
4. **(d)** The Macdonald Family
   Explanation: The Macdonald family was Kezia's next-door neighbour.
5. **(b)** COATES KINNEY
   Explanation: -
6. **(d)** Rain drops falling on the roof
   Explanation: -
7. **(b)** Her father
   Explanation: Mansfield begins the prose The Little Girl by stating that he was a figure to be feared and avoided and it was a relief for the little girl when her father left for office.
8. **(b)** Kezia
   Explanation: The little girl was called Kezia.
9. **(c)** Brother Boring
   Explanation: Albert had no idea as to what he should do with the other children. He was like a boring child for his playmates so they named him "Brother Boring".
10. **(b)** At the age of fifteen
    Explanation: Einstein hated the school regimentation and was often at a clash with his teachers. At the age of fifteen, he felt so stifled that he left the school altogether.
11. **(d)** A clever creature
    Explanation: Albert felt a special interest in a fellow student, Mileva Maric, whom he found to be a "clever creature".
12. **(c)** $E = mc^2$

    Explanation: The world famous formula $E = mc^2$ has been developed from Einstein's popular paper on Special Theory of Relativity.
13. **(c)** Special Theory of Relativity
    Explanation: One of the famous papers of 1905 was Einstein's Special Theory of Relativity according to which time and distance are not absolute.
14. **(b)** Biographical text
    Explanation: The prose titled A Truly Beautiful Mind is a biographical text on Albert Einstein.
15. **(d)** Nobel Prize for Physics
    Explanation: Einstein received the Nobel Prize for Physics in 1921 followed by showers of honours and invitations from all over the world.

16. **(d)** The United States
Explanation: In the year 1933, Einstein emigrated to the United States among the many people who escaped Fascism when the Nazis came to power in Germany.

17. **(d)** Jalaluddin
Explanation: Jalaluddin used to tell Kalam stories about the world war.

18. **(d)** Wings of fire
Explanation: My childhood is an extract from the autobiography wings of fire of A.P.J. Abdul Kalam.

19. **(d)** Dr. A. P. J. Abdul Kalam
Explanation: Wings of fire, An Autobiography of A P J Abdul Kalam.

20. **(a)** By selling tamarind seeds
Explanation: At the time of second world war demand of tamarind seeds was high. Kalam used to collect tamarind seeds daily and sold to the general merchant shop for one anna.

21. **(a)** Three
Explanation: Kalam had three closed friends Arvindan, Sivaprakasan and Ramananda Sastry.

22. **(c)** Ashiamma
Explanation: Ashiamma was Kalam's mother.

23. **(c)** Jainulabdeen
Explanation: Dr Kalam's father's name was Jainulabdeen.

24. **(d)** Rameswaram
Explanation: Kalam was born in 1931 in Rameswaram in Tamil Nadu.

25. **(d)** It was kept in a big black canvas kit bag.
Explanation: A big black canvas kit-bag was provided for Toto. The bag once closed had no escape and Toto comfortably sat on the straw which was spread at the bottom of the bag.

26. **(b)** Ruskin Bond
Explanation: The writer of '**The Adventures of Toto'** is Ruskin Bond.

27. **(a)** Author's grandfather
Explanation: Toto was purchased by the writer's grandfather as he decided to add the little animal to his private zoo.

28. **(a)** Saharanpur
Explanation: The writer's grandfather had to leave for Saharanpur to collect his pension. So, he decided to take the monkey with him as Toto's presence was still a secret in the house.

29. **(d)** He chattered with delight
Explanation: Toto was extremely naughty and to avenge the narrator's grandmother who screamed at it, the monkey threw the dish down from the tree, and chattered with delight when it broke to the hundred pieces.

30. **(b)** A monkey
Explanation: Toto was a pretty monkey. Grandfather decided to add Toto to his private zoo.

31. **(b)** A mischievous baby monkey
Explanation: Toto was a troublemaker. He was a pretty and naughty monkey.

32. **(c)** Three rupees
Explanation: Toto was classified as a dog by the ticket-collector and he charged three rupees from the narrator's grandfather.

33. **(b)** The guru
Explanation: Guru was a wise man. He tried to warn his disciple about the dangers of staying in the kingdom of Fools.

34. **(c)** A duddu
Explanation: The guru and the disciple were astonished to find that everything in the market was available at the same cost, a Duddu.

35. **(c)** Guru created a mystery and expressed his desire to die first.
Explanation: The guru created a mystery and told the king about his desire to die first. When the king asked for the reason for doing so. The guru told that it was the stake of God's justice, whoever will claim first shall become the king in future.

36. **(d)** The dancing girl
Explanation: The bricklayer blamed the dancing girl for his inaccurate work because it was her ankles that jingled when she walked up and down the street which kept the bricklayer distracted from his work.

37. **(d)** The guru and his disciple
Explanation: After the execution of the king and the minister, the people of the kingdom pleaded the guru and his disciple to become the king and the minister of the kingdom. Hence, the guru became the new king with his disciple as the minister.

38. **(b)** The king and the minister
Explanation: Both the king and the minister in the Kingdom of Fools were idiots.

39. **(b)** Because everything was available at a cheap rate
Explanation: The disciple was only concerned with food and since it was available at a very cheap rate in the kingdom, he didn't want to leave the place.

40. **(c)** To take birth again as the king of the kingdom
Explanation: A fool that he was, the king believed the guru's words and decided to die first followed by his minister so that they would born again as the king and the minister of the kingdom.

Solution

Class 09 - Hindi A

Hindi

1. **(b)** मानसिक + ता
   Explanation: 'मानसिकता' शब्द में 'मानसिक' मूल शब्द है और 'ता' प्रत्यय है।
2. **(c)** निज + त्व
   Explanation: 'निजत्व' शब्द में 'निज' मूल शब्द है और 'त्व' प्रत्यय है।
3. **(c)** परदादा, परनाना
   Explanation: 'परदादा' और 'परनाना' शब्द में 'पर' उपसर्ग है और 'दादा' और 'नाना' क्रमशः मूल शब्द हैं ।
4. **(b)** अति + रिक्त
   Explanation: 'अतिरिक्त' शब्द में 'अति' उपसर्ग है और 'रिक्त' मूल शब्द है।
5. **(a)** सतसई - समस्त पद
   द्विगु समास - समास का नाम
   Explanation: यहाँ पूर्व पद (सप्त) संख्यावाची विशेषण है इसलिए यहाँ द्विगु समास होगा।
6. **(d)** अनुज और अग्रज - समास विग्रह
   द्वंद्व समास - समास का नाम
   Explanation: यहाँ दोनों ही पद प्रधान होने के कारण द्वंद्व समास है।
7. **(d)** शरणागत - समस्त पद
   अधिकरण तत्पुरुष समास - समास का नाम
   Explanation: 'शरणागत' शब्द में 'में' अधिकरण कारक के कारक चिह्न का प्रयोग होने के कारण यहाँ अधिकरण तत्पुरुष समास है।
8. **(b)** राजा और रंक - समास विग्रह
   द्वंद्व समास - समास का नाम
   Explanation: दोनों ही पद प्रधान होने के कारण यहाँ द्वंद्व समास है।
9. **(d)** विधानवाचक वाक्य
   Explanation: किसी भी कार्य के करने व होने का सामान्य कथन विधानवाचक वाक्य में होता है।
10. **(d)** इच्छावाचक वाक्य
    Explanation: यहां वक्ता की इच्छा व्यक्त की गई है ।
11. **(b)** संकेतवाचक वाक्य
    Explanation: इन वाक्यों में कारण , शर्त तथा एक क्रिया में दूसरी का संकेत आदि का बोध होता है ।
12. **(a)** विस्मयादिवाचक वाक्य
    Explanation: घृणा, शोक,विस्मय, क्रोध आदि भाव विस्मयादिवाचक वाक्य द्वारा व्यक्त किये जाते हैं।
13. **(b)** निर्मला
    Explanation: निर्मला प्रेमचंद द्वारा रचित की गई है।
14. **(b)** सालिम अली
    Explanation: सालिम अली की तुलना पक्षी से की है। जैसे पक्षी के मर जाने के बाद उसे जीवित नहीं किया जा सकता उसी तरह सालिम अली की मृत्यु के बाद कोई अन्य व्यक्ति अपने शरीर की गर्मी और दिल की धड़कन भी देकर उन्हें जीवित नहीं रह सकता था ।
15. **(d)** चौधरी चरण सिंह
    Explanation: चौधरी चरण सिंह उस समय के तत्कालीन प्रधानमंत्री थे।
16. **(d)** डी एच लॉरेंस
    Explanation: सालिम अली की तुलना डी एच लॉरेंस से की गई है। दोनों की रुचि पक्षियों के विषय में अधिक से अधिक जानकारी प्राप्त करना थी।
17. **(c)** डायरी
    Explanation: इस शैली में लेखक आत्म-साक्षात्कार करता है।लेखक ने सालिम अली के साथ बिताए समय, अनुभवों और भावनाओं का विवरण किया है ।अत यहां डायरी शैली अपनाई गयी है।
18. **(a)** बिहार
    Explanation: जाबिर हुसैन का जन्म बिहार के नालंदा जिले में हुआ था।
19. **(a)** कैंसर से
    Explanation: कैंसर से

20. **(d)** प्रधानमंत्री चौधरी चरण सिंह से
Explanation: प्रधानमंत्री चौधरी चरण सिंह से

21. **(a)** आत्मालोचन करना
Explanation: आत्मालोचन करना

22. **(b)** लयात्मकता
Explanation: लय के कारण यहां सौंदर्य उभर कर आया है।

23. **(a)** प्रचलित भेदभाव का
Explanation: कवयित्री समाज में प्रचलित भेदभाव का विरोध करती है। समाज को हिंदू-मुसलमान आदि धर्म के आधार पर नहीं बांटना चाहिए।

24. **(d)** स्वयं को महात्मा मानने लगना
Explanation: इंद्रियों पर संयम रखने पर स्वयं को महात्मा मानने लगना । व्यक्ति यह मानता है कि भोजन न करने से वह अपनी इंद्रियों पर संयम रखता है और तपस्या का जीवन जीने के कारण अपने आप को महान समझता है ।

25. **(a)** कश्मीरी
Explanation: वे प्रथम कश्मीरी कवयित्री हैं जिनकी रचना आज भी कश्मीर में गायी जाती हैं।

26. **(b)** परमपिता परमेश्वर
Explanation: परमपिता परमेश्वर

27. **(c)** शिव
Explanation: कवयित्री शिव भक्त थी, उनका मानना था कि ईश्वर सबके हृदय में बसता है ।

28. **(b)** भोग-विलास में लिप्त होना
Explanation: 'खा' शब्द यहां भोग-विलास का प्रतीक है। जीवात्मा जितनी भोग-विलास में लिप्त होती है, परमात्मा से दूर होती जाती है।

29. **(d)** शैव
Explanation: वे शैवयोगिनी थी जिन्होंने शैव धर्म की शिक्षा अपने कुलगुरु बूढ़े सिद्ध श्रीकंठ से ली थी।

30. **(b)** सद्कर्मों द्वारा ईश्वर की प्राप्ति करना
Explanation: सद्कर्मों द्वारा ही ईश्वर की प्राप्ति की जा सकती है।

31. **(c)** आज़ाद ख्यालों वाली
Explanation: लेखिका की नानी आज़ाद ख्यालों वाली महिला थीं। वे अपने हिसाब से अपनी जिंदगी बसर करती थीं और किसी पर अपने तरीके से जीने के लिए दबाव नहीं डालती थीं।

32. **(b)** बागलकोट
Explanation: बागलकोट

33. **(a)** रेणु ने
Explanation: यह वाक्य रेणु ने कहा था क्योंकि उसे इम्तिहान देने से परहेज़ था।

34. **(b)** उनका भगवान् से सीधा तार जुड़ा हुआ है
Explanation: गाँव वालों का मानना था कि माँ जी का भगवान् के साथ सीधा तार जुड़ा हुआ है। इधर वे मन्नत मांगती हैं और उधर भगवान् उसे पूरा कर देता है।

35. **(c)** पारंपरिक, अनपढ़ और पर्दा करने वाली
Explanation: पारंपरिक, अनपढ़ और पर्दा करने वाली

36. **(a)** पांच बहिन एक भाई
Explanation: लेखिका पांच बहिन और एक भाई थे। उनमे लेखिका दूसरे नंबर की थीं। सबसे छोटा भाई था जिसका नाम राजीव है।

37. **(d)** रेणु ने
Explanation: लेखिका जिद्दी थी पर उनकी छोटी बहिन रेणु उनसे भी ज्यादा जिद्दी थी। एक दिन दिल्ली में बहुत तेज़ बारिश थी। सब तरफ पानी ही पानी था। स्कूल भी बंद था पर सबके मना करने पर भी रेणु स्कूल गई और बंद होने पर वापिस आ गई पर उसे कोई मलाल नहीं था।

38. **(b)** क्योंकि वे कभी झूठ नहीं बोलती थीं
Explanation: लेखिका की माँ के कभी झूठ न बोलने के स्वभाव के कारण सभी परिवारजन उनका आदर करते थे।

39. **(a)** उन्हें टाइफाइड हो गया था
Explanation: लेखिका को टाइफाइड हो गया था और उनके नानाजी के परम मित्र और डॉक्टर ने उनके बहुत रोने - धोने के बाद भी उन्हें वहाँ जाने की इजाज़त नहीं दी।

40. **(c)** परदादी को
Explanation: लेखिक ने अपनी नानी और माँ को तो लीक से हटकर चलने वाली बताया ही है पर उनकी परदादी भी परंपरा से हटकर चलती थीं।

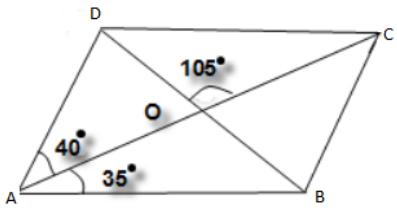
Solution

Class 09 - Mathematics

Mathematics

1. **(a)** 40°

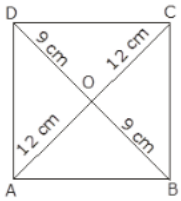
   Explanation:

   Given, ABCD is a parallelogram having ∠BAO = 35°, ∠DAO = 40° and ∠COD = 105°
   Now, ∠COD = ∠AOB = 105° [vertically opposite angles]
   In △AOB, by angle sum property of triangle,
   ⇒ ∠AOB + ∠OAB + ∠ABO = 180°
   ⇒ 105° + 35° + ∠ABO = 180°
   ⇒ ∠ABO = 40°

2. **(b)** 15 cm

   Explanation:
   Given,
   ABCD is a rhombus

   AC = 24 cm, BD = 18 cm
   AB = BC = CD = DA [side of rhombus]

   We know that diagonals of rhombus bisect each other at 90^o
   In right Δ AOB

   $AB^2 = BO^2 + AO^2$

   $AB^2 = 12^2 + 9^2 = 144 + 81 = 225$
   AB = $\sqrt{225}$ = 15 cm
   Side of rhombus = 15 cm

3. **(b)** 40°

   Explanation: $\angle BOC + \angle COD = 180^o$ (linear pair)

   $\angle COD = 180^o - 90^o = 90^o$

   In triangle DOC, $\angle DOC + \angle DCO + \angle ODC = 180^o$ (angle sum property)

   $90^o + \angle DCO + 50 = 90^o$

   $\angle DCO = 180^o - 140^o = 40$
   $\angle DCO = \angle OAB = 40$ (alternate angles)

4. **(b)** Both Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation of Assertion (A)

   Explanation: Let the fourth angle be x,

   $130^o + 70^o + 60° + x^o = 360^o$ (angle sum of quadrilateral)

   $x^o = 360^o - (130^o + 70^o + 60^o)$

   $x^o = 100^o$

   Thus, it can be observed that reason and assertion both are true and the reason explains the assertion.

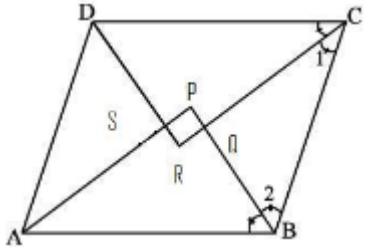
5. **(a)** x = 35°and y = 35°
Explanation: ABCD is a rhombus and a rhombus is also a parallelogram. A rhombus has four equal sides.
In △ABC, ∠BAC = ∠BCA = x
In △ABC
$x + x + 110^0 = 180^0$ ..(angle sum property of triangle)
$\Rightarrow 2x = 180^0 - 110^0 = 70^0$
$\Rightarrow x = 35^0$
Now, ∠B + ∠C = 180°(Adjacent angles are supplementary)
But, ∠C = x + y = 70°
⇒ y = 70° – x
⇒ y = 70° – 35° = 35°
Hence, x = 35°and y = 35°

6. **(d)** Diagonals of PQRS are at right angles.
Explanation: Diagonals of PQRS are at right angles form all the internal angles as right angles. [according to angle property of rectangle, i.e, all the angles of a rectangle are right angle(90^0)]

7. **(b)** $AC^2 + BD^2 = 4AB^2$
Explanation: ABCD is a rhombus.
AB = BC = CD = DA
In Rhombus, diagonals bisect each other at right angles.
So, AO = CO and BO = DO
In triangle AOB , $AO^2 + BO^2 = AB^2$ (Pythagoras theorem)
$(1/2\ AC)^2 + (1/2\ BD)^2 = AB^2$
$AC^2/4 + BD^2/4 = AB^2$
$AC^2 + BD^2 = 4\ AB^2$

8. **(b)** 50^o
Explanation: It is given in the question that, ABCD is a quadrilateral where AO and BO are the bisectors of ∠A and ∠B
We know that, sum of all angles of a quadrilateral is equal to 360^o
$\therefore \angle A + \angle B + \angle C + \angle D = 360^o$
$\angle A + \angle B + 70^o + 30^o = 360^o$
$\angle A + \angle B = 360^o - 100^o$
$\angle A + \angle B = 260^o$
$\frac{1}{2}(\angle A + \angle B) = \frac{1}{2} \times 260°$
$\frac{1}{2}(\angle A + \angle B = 130°$
Now, in triangle AOB
$\frac{1}{2}(\angle A + \angle B) + \angle AOB = 180°$
$130^o + \angle AOB = 180^o$
$\angle AOB = 180^o - 130^o$
$\angle AOB = 50^o$

9. **(a)** Rectangle
Explanation:
Let's assume our quadrilateral ABCD as a parallelogram :

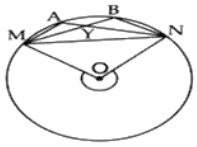


we know
$\angle DCB + \angle ABC = 180°$ (Co-interior angles of parallelogram are supplementary)
$\Rightarrow \frac{1}{2}\angle DCB + \frac{1}{2}\angle ABC = 90°$ (Both sides divide by 2)
$\Rightarrow \angle 1 + \angle 2 = 90°$... (1)
In, ΔCQB we know
$\Rightarrow \angle 1 + \angle 2 + \angle CQB = 180°$ ... (2)
From eq(1) and eq(2), We get
$\Rightarrow \angle CQB = 180° - 90°$
$\Rightarrow \angle CQB = 90°$
$\Rightarrow \angle PQR = 90°$ (because $\angle CQB = \angle PQR$, vertically opposite angles)
Similarly, it can be shown
$\angle QPS = \angle PSR = \angle SRQ = 90°$
So, quadrilateral PQRS is a rectangle.

10. **(c)** 60^o, 80^o, 80^o, 140^o
Explanation: Let ABCD be a quadrilateral with angle A = 3x, angle B = 4x , angle C = 4x and angle D = 7x
angle A + angle B + angle C + angle D = 360^o (angle sum property)
$3x + 4x + 4x + 7x = 360^o$
$18x = 360^o$
$x = 20^o$
angle A = 3 (20^o) = 60^o
angle B = angle C = 4 (20^o) = 80^o
angle D = 7 (20^o) = 140^o

11. **(d)** 40^o
Explanation: Angle made by a chord at the centre is twice the angle made by it on any point on the circumference.
$x = \frac{\angle AOB}{2} = \frac{80^0}{2} = 40^0$

12. **(d)** 220^o
Explanation:



In triangle NYB,
$\angle N + \angle Y + \angle B = 180^o$
$\Rightarrow \angle B = 180^o - 50^o - 20^o = 110^o$
Complete the cyclic quadrilateral, MBNX, where X being any point on the circumference in the major segment, we have:-
$\angle MXN = 80^o - 110^o = 70^o$
So, minor $\angle MON = 70o \times 2 = 140^o$
Hence, reflex $\angle MON = 360^o - 140^o = 220^o$

13. **(a)** 6 cm
Explanation: We know that the line joining their centres is the perpendicular bisector of the common chord.
Join AP.
Then AP = 5 cm; AB = 4 cm
Also, $AP^2 = BP^2 + AB^2$ [using pythagoras theorem]
$\Rightarrow BP^2 = AP^2 - AB^2$
$\Rightarrow BP^2 = 5^2 - 4^2$

$\Rightarrow$ BP = 3 cm

$\therefore$ triangle ABP is a right angled and PQ = 2 $\times$ BP = (2 $\times$ 3) cm = 6 cm

14. **(b)** 50°

Explanation: Take a point E on the remaining part of the circumference.

Join AE and CE.

Then, $\angle \mathrm{AEC} = \frac{1}{2}\angle \mathrm{AOC} = \left(\frac{1}{2} \times 100^{\circ}\right) = 50^{\circ}$

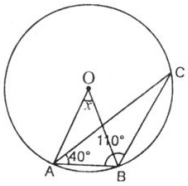
Now, side AB of the cyclic quadrilateral ABCE has been produced to D.

$\therefore$ Exterior $\angle$CBD = $\angle$AEC = 50°

$\Rightarrow$ $\angle$CBD = 50°

15. **(d)** 60^o

Explanation:



In $\triangle$ABC

$\angle$A + $\angle$B + $\angle$C = 180o

$\Rightarrow$ $\angle$C = 180^o - 40^o - 110 = 30^o

Since AB is a chord and angle made by a chord at the centre is twice the angle made by it on any point on the circumference, therefore:-

$x = 2 \times 30^0 = 60^0$

16. **(b)** 80°

Explanation: In a cyclic quadrilateral ABCD, we have:

Interior opposite angle, $\angle$ADC = exterior $\angle$CBE = 100°

$\therefore$ $\angle$CDF = (180° - $\angle$ADC) = (180° - 100°) = 80° (Linear pair)

$\Rightarrow$ $\angle$CDF = 80°

17. **(c)** 7 cm

Explanation: Join OM. OM will be perpendicular to AB. Since the line joining the midpoint of a chord to the centre is always perpendicular to the chord.

AB= 48 cm, So, AM= $\frac{48}{2} = 24cm$ (M is the midpoint of AB)

And OA=$\frac{50}{2} = 25$ (O is the midpoint of AD)

Now, applying pythagoras theorem, we get:-

$OA^2 = AM^2 + OM^2$

$25^2 = 24^2 + OM^2$

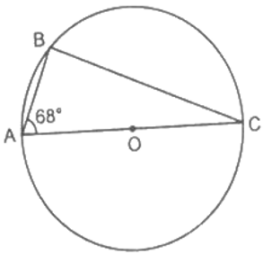
$OM^2 = 25^2 - 24^2$

$OM^2 = 625 - 576 = 49$

$OM = 7cm$

18. **(b)** 22^o

Explanation:



$\angle$B = 90^o (Angle in a semicircle)

Now, in $\triangle$ABC

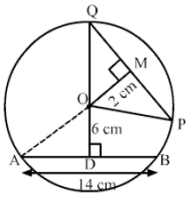
$\angle$A + $\angle$B + $\angle$C = 180^o

68^o + 90^o + $\angle$C = 180^o

19. **(d)** 18 cm

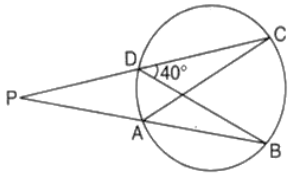
Explanation:

We are given the chord of length 14 cm and perpendicular distance from the centre to the chord is 6 cm. We are asked to find the length of another chord at a distance of 2 cm from the centre.
We have the following figure



We are given AB = 14 cm, OD = 6 cm, MO = 2 cm, PQ = ?
Since, perpendicular from centre to the chord divide the chord into two equal parts
Therefore
$AO^2 = AD^2 + OD^2$ [using paythagoras theorem]
$= 7^2 + 6^2$
$= 49 + 36$
AO= $\sqrt{85}$
Now consider the $\triangle$OPQ in which OM = 2 cm
So using Pythagoras theorem in $\triangle$OPM
$PM^2 = OP^2 - OM^2$
$= (\sqrt{85})^2 - 2^2$ ($\because$ OP = AO = radius)
$PM^2 = 81$
PM= 9 cm
Hence PQ = 2PM
$= 2 \times 9$
PQ= 18 cm

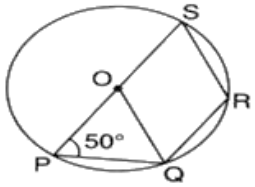
20. **(d)** 140^o
Explanation:



Since $\angle CDB = \angle CAB$
So, $\angle CAB = 40^0$
Now $\angle PAC + \angle CAB = 180^0$ [Linear Pair]
Hence, $\angle PAC = 140^0$

21. **(a)** 50^o
Explanation: $\angle$ODB = $\angle$OAC = 50^o (Angles in the same segment of a circle)
$\Rightarrow \angle$ODB = 50^o

22. **(a)** 130^o
Explanation:



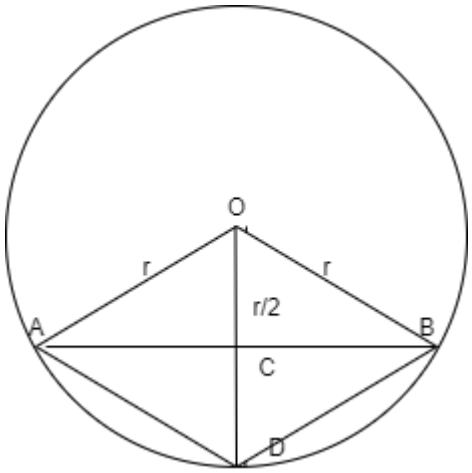
$\angle$OQP = $\angle$OPQ = 50^o
$\angle$POQ = 80^o (From angle sum property)
$\angle$SOQ = $180^o - 80^o = 100^o$ (From linear pair)
Completing the cyclic quadrilateral, QRSL, (L being any point on the circumference)
$\angle$SLQ = 50^o

From cyclic quadrilateral, we have

$\angle SRQ = 180^o - 50^o = 130^o$

23. **(d)** 30^o

Explanation:



Let OD = r

OC = $\frac{r}{2}$

In $\angle OAC$ and $\angle DAC$

SAS - $\angle OAC \cong \angle DAC$

Now, in $\angle OAD$ equilateral

$\angle AOD = 60^o$

$\angle CAO = \angle BAO = 30^o$

=> $\sin\theta = \frac{\frac{r}{2}}{r} = \frac{1}{2}$

=> $\theta = 30^o$

24. **(c)** 28^o

Explanation: $\angle ADB + \angle BDC = 118^0$

$90^0 + \angle BDC = 118^0 \Rightarrow \angle BDC = 28^0$

25. **(b)** 60°

Explanation: We have:

$\angle AOB = 2\angle ACB$

$\Rightarrow \angle \mathrm{ACB} = \frac{1}{2}\angle \mathrm{AOB} = \left(\frac{1}{2} \times 90^\circ\right) = 45^\circ$ => $\angle ACB = 45°$

$\angle COA = 2\angle CBA = (2 \times 30°) = 60°$

$\therefore \angle COD = 180° - \angle COA = (180° - 60°) = 120°$

$\Rightarrow \angle \mathrm{CAO} = \frac{1}{2}\angle \mathrm{COD} = \left(\frac{1}{2} \times 120^\circ\right) = 60^\circ$ => $\angle CAO = 60°$

26. **(a)** 120°

Explanation: $\triangle$ABC is an equilateral triangle so $\angle BAC = 60°$

In cyclic quadrilateral ABCD, we have:

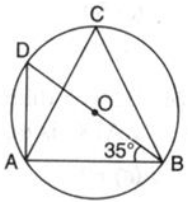
$\angle BDC + \angle BAC = 180°$

$\Rightarrow \angle BDC + 60° = 180°$

$\therefore \angle BDC = (180° - 60°) = 120°$

27. **(b)** 55^o

Explanation:



Join OA.

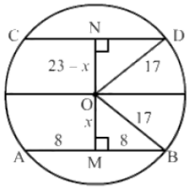
Now, in triangle AOB, from angle sum property we can find that $\angle AOB = 110^0$

Now, $2\angle ACB = \angle AOB = \frac{110^0}{2} = 55^0$

28. **(a)** 30 cm

Explanation:

Given that: Radius of the circle is 17 cm, distance between two parallel chords AB and CD is 23 cm, where AB = 16 cm. We have to find the length of CD.



We know that the perpendicular drawn from the centre of the circle to any chord divides it into two equal parts.

AM = MB = 8 cm

Let OM = x cm ==> ON = 23 - x

In right angled triangle OMB,

x = $\sqrt{17^2 - 8^2 = 15}$

Now, in triangle OND, ON = (23 - x) cm = (23 - 15) cm = 8 cm

ND = $\sqrt{OD^2 - ON^2}$

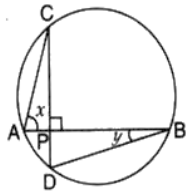
$\Rightarrow$ ND = $\sqrt{17^2 - 8^2 = 15}$

Therefore, the length of the other chord is

CD = 2 $\times$ 15 = 30 cm

29. **(c)** 90^o

Explanation:



$y = \angle ACP$ (Angles of same arc)

$\angle APC = 180^0 - 90^0 = 90^0$ ($\angle APC, \angle CPB$ are linear pair)

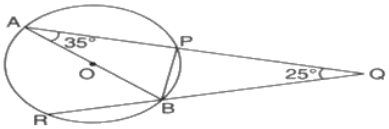
Thus from triangle APC,

$x + y + \angle APC = 180^0$

Hence, $x + y = 90^0$

30. **(d)** 115^o

Explanation:



$\angle APB = \angle BPQ = 90^0$

Now,

In $\triangle$APB,

$\angle$BAP + $\angle$APB + $\angle$ABP = 180^o

$35^o + 90^o + \angle ABP = 180^o$

$\angle ABP = 55^o$

Again,

In $\triangle$BPQ

$\Rightarrow \angle PBQ + \angle PQB + \angle PBQ = 180^o$

$\Rightarrow 90^o + 25^o + \angle PBQ = 180^o$

$\Rightarrow \angle PBQ = 65^o$

Since, RBQ is a straight line,

$\angle RBA + \angle ABP + \angle PBQ = 180^o$

$\angle RBA + 55^o + 65^o = 180^o$

$\angle RBA = 60^o$
Finally,
$\angle PBR = \angle ABP + \angle RBA$
$= 55^o + 60^o = 115^o$

31. **(d)** 90^o

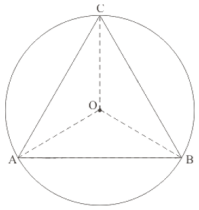
Explanation: The angle in a semicircle measures 90^o.

32. **(d)** 65°

Explanation: We have:
OA = OB (Radii of a circle)
Let $\angle OAB = \angle OBA = x°$
In $\triangle$ OAB, we have:
x° + x° + 50° = 180° (Angle sum property of a triangle)
$\Rightarrow$ 2x° = (180° - 50°) = 130°
$\Rightarrow x° = \left(\frac{130}{2}\right)^\circ = 65^\circ$
Hence, $\angle OAB = x° = 65°$

33. **(d)** 120^o

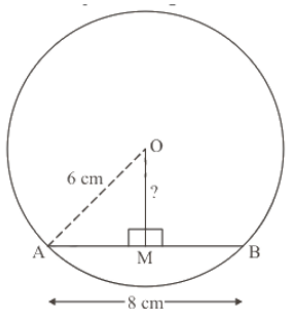
Explanation:
We are given that an equilateral $\triangle$ABC is inscribed in a circle with centre O. We need to find $\angle$BOC.
We have the following corresponding figure.



We are given AB = BC = AC
Since the sides, AB, BC, and AC are these equal chords of the circle.
Hence,
$\angle AOB + \angle BOC + \angle AOC = 360$
==> $\angle BOC + \angle BOC + \angle BOC = 360$
==> $3\angle BOC = 360$
==> $\angle BOC = \frac{360}{3}$
==> $\angle BOC = 120^o$

34. **(c)** $2\sqrt{5}$ cm

Explanation:
We will represent the given data in the figure.



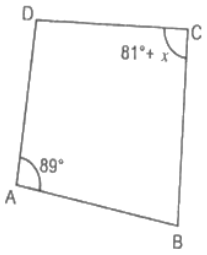
We know that perpendicular drawn from the centre to the chord divides the chord into two equal parts.
So, AM = MB = $\frac{AB}{2} = \frac{8}{2}$ = 4 cm.
Using Pythagoras theorem in the $\triangle$AMO, $\angle OMA = 90^\circ$
$OM^2 = AO^2 - AM^2$
$OM^2 = 6^2 - 4^2$
$OM^2 = 36 - 16$

OM= $\sqrt{20}$

OM= $2\sqrt{5}$ cm

35. **(d)** 10^o

Explanation:



If the quadrilateral ABCD is concyclic, then,

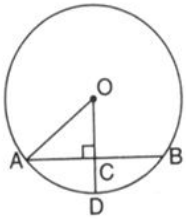
$\angle A + \angle C = 180^o$

$80^o + 81^o + x = 180^o$

$x = 10^o$

36. **(b)** 2 cm

Explanation:



AC = 4 cm and In triangle ACO,

$AC^2 + OC^2 = AO^2$

$4^2 + OC^2 = 5^2$

$16 + OC^2 = 25$

$OC^2 = 25 - 16$

$OC^2 = 9$

OC = 3

Now OD being the radius is 5 cm and OC is 3 cm.

So, CD = OD - OC = 5 - 3 = 2 cm

37. **(c)** $90^o, 45^o$

Explanation: Here, given

,

OP = OQ and OR = OQ (Radius of circle)

So, {angles opposite to equal sides are also equal}

Hence,

$PQR = 25^o + 20^o = 45^o$

and PQR = 2 PQR = 2 $45^o = 90^o$

{Angle subtended by same sides on centre is double the angle at opposite vertex}

38. **(a)** 45°

Explanation: Since an angle in a semicircle is a right angle, ∠BAC = 90°

∴ ∠ABC + ∠ACB = 90° .....(1)

Now, AB = AC (Given)

⇒ ∠ABC = ∠ACB = 45° ....(2)

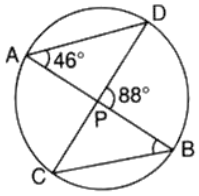
⇒ ∠ABC + ∠ABC = 90° [From (1) and (2)]

⇒ 2∠ABC = 90

⇒ ∠ABC = 45°

39. **(a)** 42^o

Explanation:



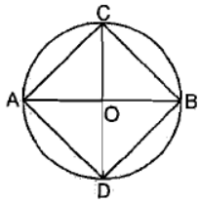
$\angle PCB = 46^0$ (Angles of same arc)

$\angle CPB = 180^0 - 88^0 = 92^0$ (Linear Pair)

So, $\angle PBC = 180^0 - 46^0 - 92^0 = 42^0$ (Using angle sum property in triangle PCB)

40. **(c)** square

Explanation:



Let AB and CD be the diagonals of a circle such that AB $\perp$ CD.

Joining points A, B, C, D in the order we see that AB and CD are the equal diagonals of quad. ACBD which intersect at a right angle. every angle is equal to 90°

$\therefore$ ACBD is a square.

Solution

Class 09 - Science

Multiple Choice Questions Test (September) 2020-21

1. **(d)** 1:8 or 2:16
   Explanation: The atomic mass of Hydrogen is 1 u and that of Oxygen is 16 u. The formula of water is H_2O.
   Hence, the ratio of Hydrogen and Oxygen by mass in water will be 2:16 or 1:8. The ratio will be the same irrespective of the source of the water.

2. **(d)** 18 g of CH_4
   Explanation:
   - 18 g of CH_4 contains a maximum number of atoms.
     The Molar mass of CH_4 = The atomic mass of C + 4 $\times$ the atomic mass of H
     = 12 + 4 = 16 g
     Number of atoms = 1 + 4 = 5
     Thus, Number of atoms = Number of atoms in the molecule $\times \frac{\text{Mass of substance}}{\text{Molar mass}} \times N_A$
     $= 5 \times \frac{18}{16} \times N_A$
     = 5.63 N_A
   - The number of atoms in 18 g of H_2O:
     Molar mass of H_2O = 18 g; Number of atoms = 2 + 1 = 3
     $= 3 \times \frac{18}{18} \times N_A$
     = 3 N_A
   - The number of atoms in 18 g of O_2:
     Molar mass of O_2 = 32 g; Number of atoms in O_2 = 1 + 1 = 2
     $= 2 \times \frac{18}{32} \times N_A$
     = 1.12 N_A
   - The number of atoms in 18 g of CO_2:
     $= 3 \times \frac{18}{44} \times N_A$
     = 1.23 N_A

3. **(d)** (A)
   Explanation: The chemical formula of the Quick lime is CaO. So, Calcium (Ca) and Oxygen (O) elements are present in Quick lime.

4. **(d)** 1-B, 2-D, 3-A, 4-C
   Explanation:

(1) A dozen of pencil	(B) 12
(2) Avogadro constant	(D) 6.022×10^{23}
(3) Unit used for calculation of amount of chemical substances	(A) Mole
(4) Reference atom	(C) Carbon-12

5. **(d)** $\frac{16}{6.023 \times 10^{23}}$ g
   Explanation: Mass of one atom of oxygen
   $= \frac{\text{Atomic mass}}{N_A}$
   $= \frac{16}{6.022 \times 10^{23}} g$
   = 2.657 x 10^{-26} Kg

6. **(b)** (c) and (d) are correct.
Explanation: H_2SO_4 is composed of 2 Hydrogen, 1 Sulphur and 4 Oxygen atoms. It relative molecular mass is 98.

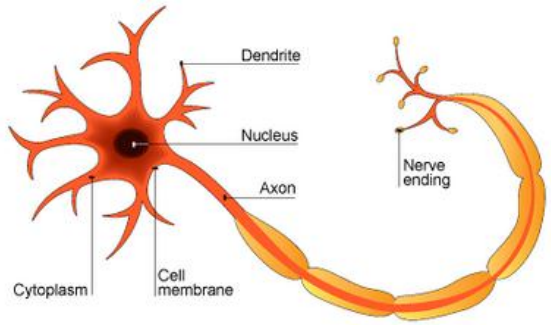
7. **(c)** $\frac{1}{2}$ mole
Explanation: The molecular mass of H_2O_2 is 34 u. So, 34 g of hydrogen peroxide will contain 1 mole. Therefore, 17 g of hydrogen peroxide will contain $\frac{17}{34}$ moles or $\frac{1}{2}$mole.

8. **(d)** 6.022×10^{23} N_2 molecules
Explanation: One mole of N_2 is equal to 28 g of nitrogen or 6.022×10^{23} molecules.

9. **(a)** Hydrogen,Bromine
Explanation: ----------

10. **(c)** 0.1 mole
Explanation: The molecular mass of Sodium is 23 u. So, 23 g of Sodium (Na) is equal to 1 mole of Na. Number of moles of Na present in 2.3 g of Na = Given mass of Na / Molar mass of Na = $\frac{2.3}{23}$ = 0.1 mole

11. **(d)** Dendron, Cyton, Nucleus, Axon
Explanation: Dendron, Cyton, Nucleus, Axon



Dendron: These are hair like processes connected to the cyton. They receive stimulus, which may be physical, chemical, mechanical or electrical, and pass it on to the cyton.
Cyton: It is the cell body, with a central nucleus surrounded by cytoplasm.
Nucleus The main portion of the cell is called the soma or cell body. It contains the nucleus,
Axon: The axon is also known as the nerve fibre. It is an enlongated tubular structure that extends from the cell body and ends at other cells.

12. **(b)** simple squamous epithelium
Explanation: Tongue, esophagus, and the lining of the mouth are made up of simple squamous epithelium. It is also found in blood vessels and alveoli. It protects the underlying parts of the body from mechanical injury, entry of germs, chemicals, and drying. It also forms a selectively permeable surface through which filtration occurs.

13. **(d)** parenchyma and collenchyma
Explanation: The main function of parenchyma is to provide support and to store food. In some plant parts, parenchyma has chlorophyll as well. In that case, parenchyma carries out photosynthesis and is then termed as chlorenchyma. Collenchyma tissue contains chloroplast and carry out photosynthesis.

14. **(c)** collenchyma
Explanation: Collenchyma consist of living cells and are characterised by the presence of cellulose. Collenchyma is a mechanical tissue in young dicotyledonous stems and provides mechanical support and elasticity. It provides great tensile strength with flexibility to those organs in which it is found. It allows easy bending in various parts of a plant mainly young growing stem without breaking them.

15. **(b)** parenchyma
Explanation: Parenchyma cells containing chloroplasts are collectively termed as chlorenchyma. Special parenchyma tissue is found in the aquatic plants and some land plants (e.g., petiole of Banana, Canna). It is known as aerenchyma. It consists of a network of parenchyma cells that enclose very large air cavities.

16. **(c)** light and dark striations and is multinucleated
Explanation: Striated muscle cells are cylindrical, elongated and enclosed in a membrane called

sarcolemma.
Striated muscles cells are multinucleated.
Striated muscles show presence of light and dark bands which gives it striped appearance.

17. **(a)** calcium and phosphorus
Explanation: Bone cells are embedded in a hard matrix, which is strengthened by fibers, and hardened by calcium and phosphorus salts. The matrix is deposited in the form of concentric layers of lamellae formed around a central Haversian canal.

18. **(d)** meant for conduction
Explanation: Xylem is composed of tracheids, vessels, xylem parenchyma, and xylem fibres. Tracheids and vessels are tubular structures and thus they provide a channel for conduction of water and minerals. Phloem is composed of sieve tubes, companion cells, phloem fibre and phloem parenchyma. Sieve tubes are tubular cells with perforated walls. Sieve tubes are the conducting elements of phloem.

19. **(d)** cardiac muscles of heart
Explanation: Cardiac muscles are present in the heart. They contract and relax rapidly, rhythmically, and tirelessly. They help to pump the blood to various parts of the body.

20. **(a)** Ligament
Explanation: Two bones can be connected to each other by another type of connective tissue called the ligament.

21. **(b)** Conduction of food
Explanation: The epidermis does not conduct the food to the various parts of the plant. Conduction of food is carried by phloem tissue.

22. **(b)** Tendons are non-fibrous tissue and fragile
Explanation: Tendons are white fibrous connective tissues having great strength and join skeletal muscles with bones.

23. **(d)** Cartilage
Explanation: Matrix of cartilage is made up of sugar and proteins.

24. **(b)** 1-B, 2-D, 3-A, 4-C
Explanation:
    - Inertia depends on the mass of object.
    - Friction is a necessary evil because neither movement of bodies not holding anybody would have been possible without friction.
    - Momentum can be given as the product of mass and velocity.
    - Force can be defined as the rate of change of momentum.

25. **(d)** Newton's third law of motion
Explanation: Inflated balloon lying on the surface of a floor moves forward when pierced with a pin due to Newton's third law of motion. The air coming out of the balloon forces the balloon in the opposite direction.

26. **(c)** Both statement A and B are true
Explanation: The rocket contains fuel as well as oxygen to burn its fuel as combustion takes place only in the presence of oxygen. A jet plane is filled with hydrogen only and it takes oxygen from the atmosphere to burn its fuel. So, both statements are true.

27. **(a)** 1-D, 2-A, 3-C, 4-B
Explanation: 1) force can be defined as the product of mass and acceleration i.e. F= m× a.
2) momentum(p) can be defined as the product of mass and velocity i.e. p= m× v.
3) Change in momentum can be given as-
$\Delta p = p_2 - p_1 / t$
4) according to the law of conservation of momentum, momentum before collision is equal to momentum after collision.

28. **(c)** $F = \frac{P}{t}$
Explanation: $F = \frac{P}{t}$ because momentum can be given as the product of the force applied and time.

29. **(c)** to resists any change in its state of motion
Explanation: Inertia resists any change in its state of motion.It is a property of matter by which it continues in its existing state of rest or uniform motion in a straight line, unless that the state is changed by any external force.

30. **(d)** a cup of tea
Explanation: Inertia is directly proportional to mass and one which poses least resistance also possess least inertia.

31. **(b)** statement B is true
Explanation: A passenger falls backward when a bus suddenly starts moving in the forward direction due to the inertia of rest. A gun recoils backward with a small speed than the bullet moving forward due to the law of conservation of momentum.

32. **(a)** inertia
Explanation: Inertia is the resistance of any physical object to any change in its state of motion. This includes changes to the object's speed, direction, or state of rest. Inertia will result in falling off the bag from the top of the van.

33. **(a)** inertia
Explanation: Inertia is the resistance of any physical object to any change in its state of motion. This includes changes to the object's speed, direction, or state of rest.

34. **(c)** three
Explanation: If two unequal forces are taken then given two vectors of unequal length, adding them will result in a non-zero vector because, in order to have a zero vector sum, the first and second vectors must "cancel out." For example, if you travel left 1 metre you must travel 1 metre right to return to your initial position. So, 3 unequal forces are mandatory for making resultant force zero.

35. **(a)** Newton's third law
Explanation: Newton's third law of motion is: For every action, there is an equal and opposite reaction.

36. **(c)** momentum
Explanation: The acceleration of an object as produced by a net force is directly proportional to the magnitude of the net force, in the same direction as the net force, and inversely proportional to the mass of the object.

37. **(a)** Both A and R are true and R is the correct explanation of assertion.
Explanation: Epidermal cells on the aerial parts of the plant often secrete a waxy, water-resistant layer on their outer surface. This aids in protection against loss of water, mechanical injury, and invasion by parasitic fungi. Since it has a protective role to play, cells of epidermal tissue form a continuous layer without intercellular spaces.

38. **(b)** Both A and R are true but R is not the correct explanation of assertion.
Explanation: The cells of non-striated muscles or smooth muscles are spindle-shaped, uni-nucleated, elongated, and have no striations. They are involuntary in nature.
The non-striated muscles or smooth muscles are found within the walls of the elementary canal, bladder, and blood vessels.

39. **(a)** Both A and R are true and R is the correct explanation of assertion.
Explanation: The third law of motion states that when one object exerts a force on another object, the second object instantaneously exerts a force back on the first. These two forces are always equal in magnitude but opposite in direction. The two opposing forces are also known as action and reaction forces.

40. **(a)** Both A and R are true and R is the correct explanation of assertion.
Explanation: While catching a fast-moving cricket ball, a fielder in the ground gradually pulls his hands backwards. While doing so, the fielder increases the time during which the high velocity of the moving ball decreases to zero. Thus, the acceleration of the ball is decreased and therefore the impact of catching the fast-moving ball is also reduced.

Solution

Class 09 - Social Science

Social Science

1. **(c)** Free Corps
   Explanation: The Weimar Republic crushed the uprising with the help of a war veterans organisation called Free Corps.
2. **(a)** Nuremberg
   Explanation:
   At the end of World War 2, the international military tribunal was set up at Nuremberg to prosecute Nazi war criminals for crimes against war, crimes against peace and humanity.
3. **(b)** Not so powerful speeches by Hitler
   Explanation: In the new style of nazi politics, there were no ferocious and strong speeches by Hitler.
4. **(d)** Jews
   Explanation: Jews were stereotyped as the killer of Christ and Usurers and hence they were considered as Undesirables.
5. **(c)** Killing on a large-scale leading to the destruction of a large section of people
   Explanation: Under the shadow of the Second World War, Germany had waged a genocidal war, which resulted in the mass murder of selected groups of innocent civilians of Europe.
6. **(a)** Economic Crisis
   Explanation:
   Wall Street Exchange collapsed in one day, around 13 million shares were sold – the start of economic depression. The national income of the USA halved. Factories shut down, farmers were hit, export fell and speculators took money off the market. The industrial production of Germany reduced to 40%. People lost jobs, paid reduced wages, unemployment at 6 million. Criminal activities increased. Savings of old age lost as current lost its value. Peasants couldn't fill the stomach. All these factors indicate that the Great Depression was an Economic Crisis.
7. **(a)** Gestapo
   Explanation: The Gestapo were the secret state police and were the strongest and most feared.
8. **(a)** Socialist, Deomocrats and Catholics
   Explanation: Socialists, Catholics, and Democrats who supported the Weimar Republic after the war became easy targets of attack in the conservative nationalist circles and were called November Criminals.
9. **(b)** Britain
   Explanation: Britain
10. **(d)** Assimilation
    Explanation: Assimilation was not part of Hitler's policy to exclude Jews.
11. **(a)** Mawsynram
    Explanation: Mawsynram in the southern ranges of the Khasi Hills receives the highest average rainfall in the world.
12. **(a)** December, January
    Explanation: The cold weather season begins from mid-November in northern India and stays till February. December and January are the coldest months in the northern part of India.
13. **(a)** North – East trade winds
    Explanation: During Winters the North-East trade winds prevail over the country. They blow from land to sea and hence, for the most part of the country, it is a dry season.
14. **(d)** Ist week of July
    Explanation: The Arabian Sea and the Bay of Bengal branches of the monsoon merge over the northwestern part of the Ganga plains. By the first week of July, western Uttar Pradesh, Punjab, Haryana, and Eastern Rajasthan experience the monsoon.

15. **(d)** West Bengal
Explanation: The hot weather is also the season for localised thunderstorms, associated with violent winds, torrential downpours, often accompanied by hail. In West Bengal, these storms are known as the 'Kaal Baisakhi'.

16. **(b)** These are strong, gusty, hot, dry winds blowing during the day over the north and north western India.
Explanation: A striking feature of the hot weather season is the 'loo'. These are strong, gusty, hot, dry winds blowing during the day over the north and northwestern India. Sometimes they even continue until late in the evening. Direct exposure to these winds may even prove to be fatal.

17. **(b)** Kerala, Karnataka
Explanation: Towards the close of the summer season, pre-monsoon showers are common especially, in Kerala and Karnataka. They help in the early ripening of mangoes, and are often referred to as 'mango showers'.

18. **(a)** Mawsynram
Explanation: Mawsynram in the southern ranges of the Khasi Hills receives the highest average rainfall in the world. It is the wettest place on earth.

19. **(d)** The winds blow from land to sea
Explanation: During winter North-East trade winds prevail over the country. They blow from land to sea and hence, for most parts of the country, it is a dry season.

20. **(c)** Both are true
Explanation: During cold weather season:
1.Days are warm and Nights are cold.
2.Pressure is comparatively lower in south India.The winds start blowing from high pressure area of north-west to low pressure area of.

21. **(c)** West Bengal
Explanation: In West Bengal, land reform measures have helped in reducing poverty.

22. **(d)** Odisha
Explanation: As compared to other given states Odisha has maximum number of people living below poverty line.

23. **(a)** Both A and B are true.
Explanation: The poverty ratio is higher in rural areas as compared to urban areas and the poverty ratio is decreasing(there is an annual average decline of 2.2% in India).So both A and B are true.

24. **(c)** All of these
Explanation: Group of people prone to food Insecurity are
    i. SC
    ii. ST
    iii. OBC
    iv. Landless

25. **(d)** Scheduled Tribes
Explanation: Scheduled Tribes has not seen a decline in poverty ratio.

26. **(c)** National Sample Survey Organisation
Explanation: National Sample Survey Organisation (NSSO) carries out sample surveys in India.

27. **(d)** SGSY
Explanation: SGSY(Swarnajayanti Gram Swarozgar Yojana) has been launched to bring the assisted poor families above the poverty line by organizing them into self help groups through a mix of bank credit and government subsidy.

28. **(c)** Marginal farmers
Explanation: Marginal farmers are not included in the most vulnerable group of poverty because they are cultivating big farms (up to 1 hectare) as owners or landlords.

29. **(d)** Mahatama Gandhi National Rural Employment Guarantee Act.
Explanation: MNREGA stands for Mahatama Gandhi National Rural Employment Guarantee Act (2005).

30. **(d)** PMRY
Explanation: PMRY (Prime Minister Rozgar Yojna) scheme is to create self-employment opportunities for educated unemployed youth in rural areas and small towns.

31. **(b)** Democracy
Explanation: Democracy means rule of the people, for the people and by the people.

32. **(d)** representative
Explanation: representative

33. **(c)** Fiji
Explanation: In Fiji, the electoral system is such that the vote of an indigenous. Fiji has more value than that of an Indian-Fijian.

34. **(a)** Institutional Revolutionary Party
Explanation: Institutional Revolutionary Party

35. **(b)** China
Explanation: In China there is only one party system and party name is Chinese communist party.

36. **(c)** Illiberal democracy
Explanation: Illiberal democracy

37. **(b)** People
Explanation: People are the real source of power in a democratic country.

38. **(b)** People are free to believe in and practise any religion.
Explanation: People are free to believe in and practice any religion, is not a valid reason for arguing that there is a lesser possibility of famine in a democratic country.

39. **(d)** Free and fair election
Explanation: Free and fair election

40. **(b)** Rule of law and respect for rights
Explanation: This one is not argument against democracy. It is the feature of democracy.